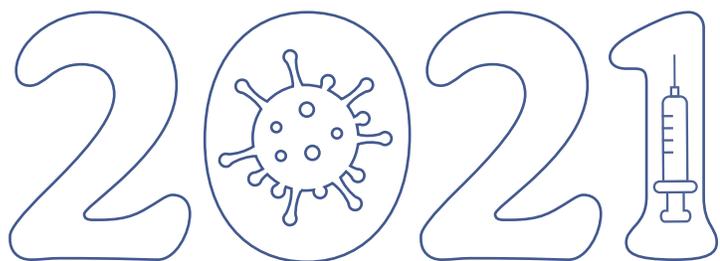


ALABAMA DEPARTMENT OF PUBLIC HEALTH

Annual Report

2021

The year '2021' is rendered in a blue outline font. The digit '0' is replaced by a stylized virus particle with several spikes. The digit '1' is replaced by a medical syringe.A white circular logo containing the text 'ALABAMA PUBLIC HEALTH' in red, stacked vertically.

ALABAMA
PUBLIC
HEALTH

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Costs, Administration
and Organization



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of Disease and
Medical Care

A LETTER FROM THE STATE HEALTH OFFICER

The Honorable Kay Ivey
Governor of Alabama
State Capitol
Montgomery, Alabama 36130

Dear Governor Ivey:

I am pleased to present the Annual Report of the Alabama Department of Public Health (ADPH) for 2021 and share many accomplishments made during this year which was replete with unique challenges.

The largest outbreak of a single and previously unknown disease in more than a century, Coronavirus Disease 2019 (COVID-19), resulted in the state experiencing more deaths than births for the first time in the state's history. The significant increase in deaths in the ongoing pandemic was marked by surges, as the dominant and contagious Delta variant emerged in April and the even more highly transmissible Omicron variant in December.

Educating the public and coordinating preparedness and response became crucial in mitigating risk to protect the public's health. Fortunately, testing capabilities improved, highly effective vaccines became available to all eligible people age 12 and older, and several treatment modalities were authorized. Resources such as personal protective equipment, test kits, vaccines, treatments, and qualified personnel were deployed expeditiously, and efforts were successful in distributing more than 4.4 million doses of COVID-19 vaccine to enrolled healthcare providers throughout the state.

COVID-19 affects everyone regardless of race, ethnicity, or political affiliations, and equitable vaccine distribution remained a driving force in the implementation of vaccination efforts. Under your leadership, the Alabama National Guard and partners set up and staffed multiple mass vaccination sites in 24 traditionally underserved and rural communities. By making these sites more accessible to all vulnerable populations, including people with low incomes and functional and access needs, adverse outcomes were reduced, and half of the state's population was vaccinated.

With the opening of the state-of-the-art public health laboratory in Prattville, the ability to respond to COVID-19 and other existing and emerging public health threats was enhanced. Laboratorians performed a total of 1.4 million laboratory tests of clinical specimens and environmental samples in 2021.

New technological tools simplified data to help the public visualize overall levels of COVID-19 community transmission and share critical information with the public and decision makers while preserving patient privacy. To improve data-driven strategies, a new office was created. Other recent advances have resulted in having all Alabama birth records, approximately 96 percent of divorce records, and 98 percent of death certificates registered electronically.

Although COVID-19 was the primary infectious disease focus in 2021, activities regarding other diseases returned to pre-COVID-19 status. Prevention and control of designated communicable diseases and illnesses included the investigation of 695 outbreaks

and clusters. To foster healthy populations, efforts continued to reduce the burden and transmission of cardiovascular disease, HIV, tuberculosis, and cancer. To address the growing opioid crisis, grant funding provided training and naloxone assistance, support, and referral to opioid overdose victims and their families.

Ongoing pandemic precautions did not interrupt access to family healthcare services which included telehealth visits, remote benefits issuance for WIC, and telephone appointments. Alabama's WIC Program served nearly 112,000 participants monthly and resulted in more than 77 million dollars in food redemptions statewide during 2021. Environmental inspections continued to ensure safety in food service establishments, milk production, lodging, seafood production, onsite sewage disposal, and vector control.

Promising news was announced as Alabama's infant mortality rate for 2020 was 7.0 deaths per 1,000 live births, a rate which tied the lowest rate in more than 5 decades. The 3-year infant mortality rate of 7.2 for the years 2018-2020 was the lowest on record; however, Alabama's rate remained above the U.S. 2020 provisional rate of 5.5 infant deaths per 1,000 live births. Significant disparities between birth outcomes for African American and white infants persisted but narrowed in 2020. Of the 404 total infant deaths, 48.5 percent were attributed to the white race group, while 49.3 belonged to the African American race group.

We must address the many complex factors that contribute to poor health outcomes for mothers, babies, and families as reflected in our infant mortality rate. Efforts are being made to connect programs, populations, and resources and work across multiple organizations and through stakeholders to address the public health concerns that impact Alabama citizens. An example is the Community Health Advisor initiative for community-based outreach, education, and collaborative relationships with community organizations which expanded to serve 20 counties in 2021.

In the past 2 years of navigating the COVID-19 pandemic, our compassionate, committed, dedicated, and resilient public health professionals have worked diligently to promote, protect, and improve Alabama's health. We appreciate your support as we work with you and our other partners to enjoy the healthy Alabama we envision.

Sincerely,



Scott Harris, M.D., M.P.H.
State Health Officer



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MISSION

To promote, protect, and improve Alabama's health

VISION

Healthy People. Healthy Communities. Healthy Alabama

CORE VALUES

Excellence – We believe in providing the highest quality services to our clients. We believe that all clients should be served with compassion, empathy, fairness, and respect.

Integrity – We believe our employees should be professional, competent, honest, and knowledgeable; maintaining the highest level of integrity, accountability, confidentiality, and concern for our clients. We believe in always striving to maintain the public trust.

Innovation – We believe that we should demonstrate the ability to adapt to change and to be flexible in our approach to solving problems and providing services.

Community – We believe that we should build and maintain internal and external partnerships to address public health challenges including effectively utilizing resources, solving problems, and building relationships.

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CENTRALIZED BILLING UNIT

The Centralized Billing Unit (CBU) exists to provide statewide county support for claim corrections, credits, and resubmissions to recover the maximum amount of revenue owed to the department. CBU also provides administrative services to ensure compliance and integrity with all insurance payer sources as well as local, state, and federal requirements. CBU's responsibilities include the following:

- Provider enrollment
- Re-enrollment of clinical locations
- Reactivation of provider status
- Liaison for all payer sources including private and state agencies
- Utilizing current procedural terminology coding with a certified coder on staff
- Monitoring billing contracts and/or provider agreements
- Credentialing
- Other reporting analysis and trends

Dental Billing

CBU assisted a general dentist with completing required credentialing paperwork to establish a new dental location at the Greene County Health Department. Dental services are provided at the Tuscaloosa County Health Department as well. CBU continues to work with the dentist to successfully credential new locations to make dental services possible for patients.

Training

CBU worked with the state clerical director to provide refresher training to district clerical staff due to new staff joining the department, and the need to provide updated training to all staff assisting with reimbursement for services rendered. Due to COVID-19 prevention efforts, the refresher trainings were conducted virtually. The training information covered included topics such as revenue cycle management, data collection, insurance eligibility, encounter forms for specific programs such as family planning, immunization, disease control services, documentation, CLAIMS Integration, claim submission, and corrective billing processes.

Telemedicine

In 2021, telemedicine played an important role in helping control the rapid spread of COVID-19. Face-to-face clinical

services were replaced with the use of technology by providers to offer remote care to patients. As telemedicine rules and regulations continuously evolved, CBU stayed up to date on telemedicine reimbursement policies released by payer sources to ensure the department received revenue for services rendered during the pandemic.

Disease Control Services

Despite being inundated with efforts to combat the coronavirus, CBU continued its pursuit of billing for disease control services. CBU continued work efforts in conjunction with the Bureau of Information Technology (IT) to submit claims and receive reimbursement for disease control services rendered in the local county health departments for fully Medicaid-eligible patients. The ability to bill for these services helped with the financial reimbursement to continue to prevent the spread of sexually transmitted diseases and related sequelae such as preterm birth, congenital syphilis, and infertility. The ability to bill also satisfied the department's obligation to federal partners to seek additional funding to support prevention efforts.

Immunization

CBU continued efforts to recover reimbursement for the COVID-19 vaccine administration fee. CBU continued to stay informed on continual policy updates for billing compliance. CBU supported the department's efforts to encourage both COVID-19 and influenza vaccination during the pandemic.

Clinical and Laboratory Services

CBU continued its partnership with IT working with CLAIMS Integration to bill for clinical and laboratory services to both state and third-party payers. CBU worked successfully with IT to prepare for additional newborn screening services statewide. CBU also submitted invoices on behalf of the state laboratory for environmental water testing.

Looking Ahead

As the fight continues to mitigate COVID-19, CBU will continue to look for opportunities for revenue expansion as well as expanding the services offered to patients. Although COVID-19 has significantly impacted operations, the unit remains committed to supporting effective and efficient work processes to ensure successful revenue recovery efforts.

BUREAU OF CHILDREN'S HEALTH INSURANCE

The Bureau of Children's Health Insurance administers ALL Kids, Alabama's separate Children's Health Insurance Program (CHIP). ALL Kids provides comprehensive health coverage to eligible children and uses the Blue Cross Blue Shield of Alabama provider network. In addition to the ALL Kids Program, as a result of provisions in the Affordable Care Act, CHIP also funds a group of Medicaid-eligible children (MCHIP), which is administered by the Alabama Medicaid Agency.

At the end of FY2021:

Total CHIP enrollment: 186,344

ALL KIDS: 74,173

MCHIP: 112,171

Figure 1. ALL Kids Enrollment by Age Group

	<1	1-5	6-12	13-18	TOTAL
ALL Kids	2,940	17,646	28,732	24,855	74,173
MCHIP	9	185	27,208	84,769	112,171
CHIP TOTAL	2,949	17,831	55,940	109,624	186,344

In FY2021, the ALL Kids Program paid over \$230 million in claims to primarily Alabama providers. ALL Kids continued to provide COVID-19 testing and treatment at no cost to families.

ALL Kids provides comprehensive coverage for unborn babies through the ALL Babies Program. The three pilot counties remain Macon, Montgomery, and Russell. During FY2021, the program provided coverage to 571 enrollees. On August 1, ALL Babies implemented a health services initiative to provide full coverage postpartum benefits for enrollees who are prenatally covered in the ALL Babies Program.

ALL Kids began the planning process of expanding outreach efforts to include a digital media campaign. The campaign will begin in early FY2022 and continue through the end of the fiscal year.

Figure 2. Amount ALL Kids Paid in FY2021 (in millions)

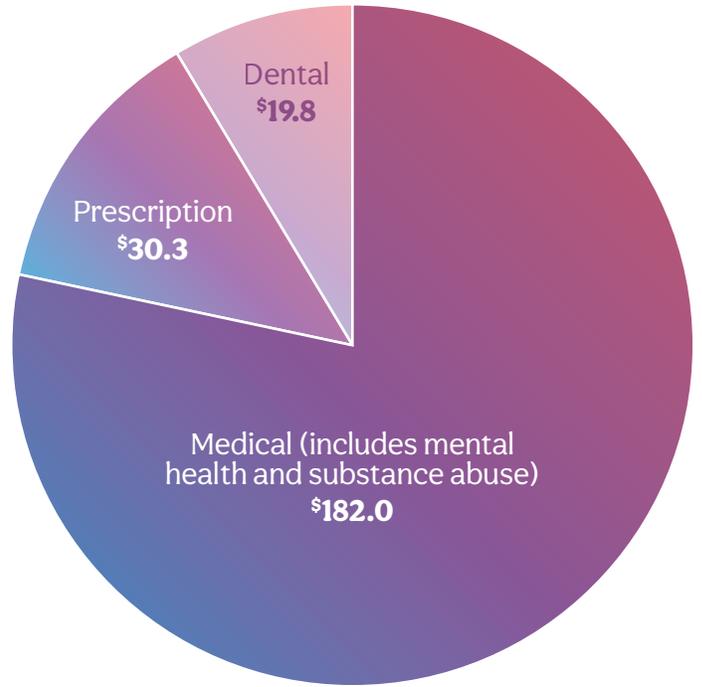


Figure 3. FY2021 ALL Kids-paid COVID Claims
(*Graph based on ALL Kids only; not MCHIP)

COVID-19 Confirmed Diagnosis		
Net Pay Medical	Net Pay Per Patient	Patients Medical
\$3,956,407	\$595	6,653
CHIP TOTAL	2,949	17,831

COVID-19 DNA/RNA Diagnostic Tests		
Net Pay Medical	Net Pay Per Patient	Patients Medical
\$3,250,015	\$112	28,957

*Figures rounded to the nearest dollar.

BUREAU OF CLINICAL LABORATORIES

The mission of the Bureau of Clinical Laboratories (BCL) is to improve and protect Alabama residents' health through laboratory science. The laboratory consists of the Administration, Business Operations, Analytical Chemistry (Chemical Terrorism/Lead), Logistics, Microbiology, Mycobacteriology and Mycotics, Newborn Screening (NBS), Quality Management, Sanitary Bacteriology, Sexually Transmitted Diseases (STD)/Chemistry, and Mobile Laboratory divisions. Testing is funded through Medicaid receipts and federal grants.

Public health laboratories form the backbone of a national laboratory network on alert 24/7 to respond to novel strains of disease, natural disasters, chemical spills, foodborne outbreaks, and other health emergencies. They collaborate closely in these efforts with the Centers for Disease Control and Prevention (CDC) and other federal agencies including the Environmental Protection Agency (EPA), Food and Drug Administration (FDA), Federal Bureau of Investigation, and Department of Homeland Security to perform complex testing and surveillance.

Processes at the central laboratory improved since relocating to its new facility in 2020. While surges in COVID-19 infections prevented several attempts for an in-person dedication observance, a virtual dedication ceremony is planned for the 66,000 square foot Donald E. Williamson, M.D., State Health Laboratory in early 2022. This \$30 million facility, located on Legends Court in Prattville, replaces the Montgomery laboratory.

Laboratory Quality

Laboratorians work diligently and are committed to ensure testing that supports public health. The BCL is credentialed by the CDC, FDA, EPA, Clinical Laboratory Improvement Amendments, and is working toward International Organization for Standardization (ISO) 17025:2017 accreditation to reinforce obtaining quality test results.

Distribution of Clinical Specimens and Environmental Specimens Received

The BCL offers an array of laboratory testing services at the central laboratory in Prattville and a specialty laboratory in Mobile. Even during the second year of the pandemic, a total of 1,420,257 laboratory tests were performed in 2021 for the 565,553 clinical specimens and 21,808 environmental samples received. The distributions of specimens are depicted in the accompanying figures.

Laboratory Information Management System (LIMS)

Electronic ordering and reporting allow for near real-time results. The number of clinical and environmental results reported electronically to partners continues to increase. The BCL will upgrade its Horizon LIMS to a new version in early 2022, and its capacity continues to expand as new instruments are interfaced. It is interfaced directly with ADPH's electronic health record (EHR), the EHRs of Mobile and Jefferson counties, and direct interface development continues with some partners in

Figure 4. 2021 Distribution of Clinical Specimens Received at the BCL

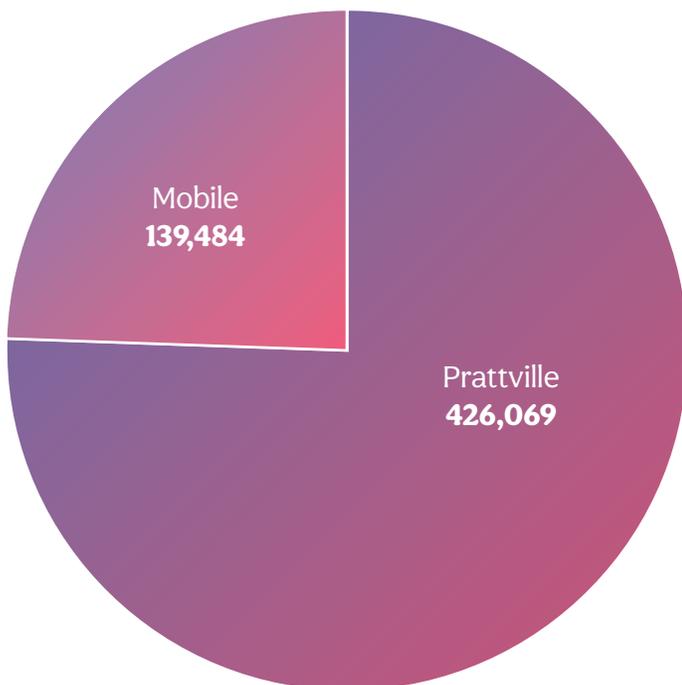
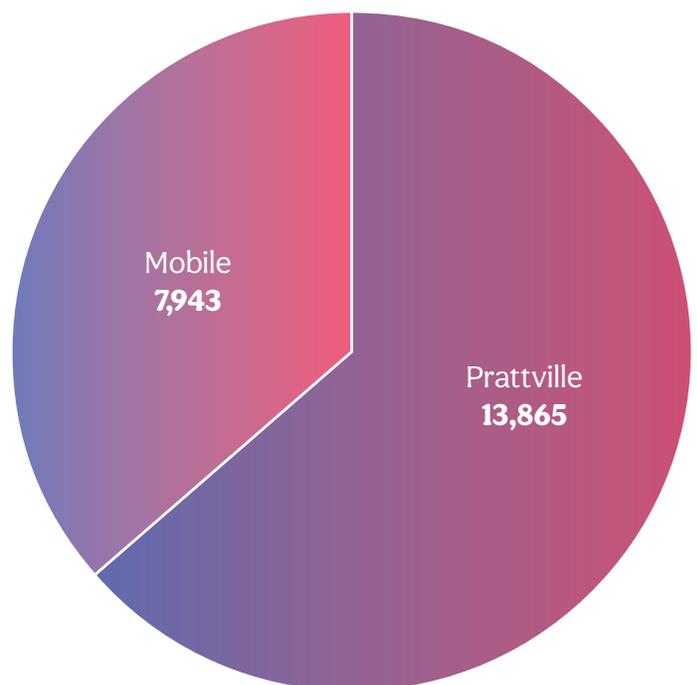


Figure 5. 2021 Distribution of Environmental Specimens

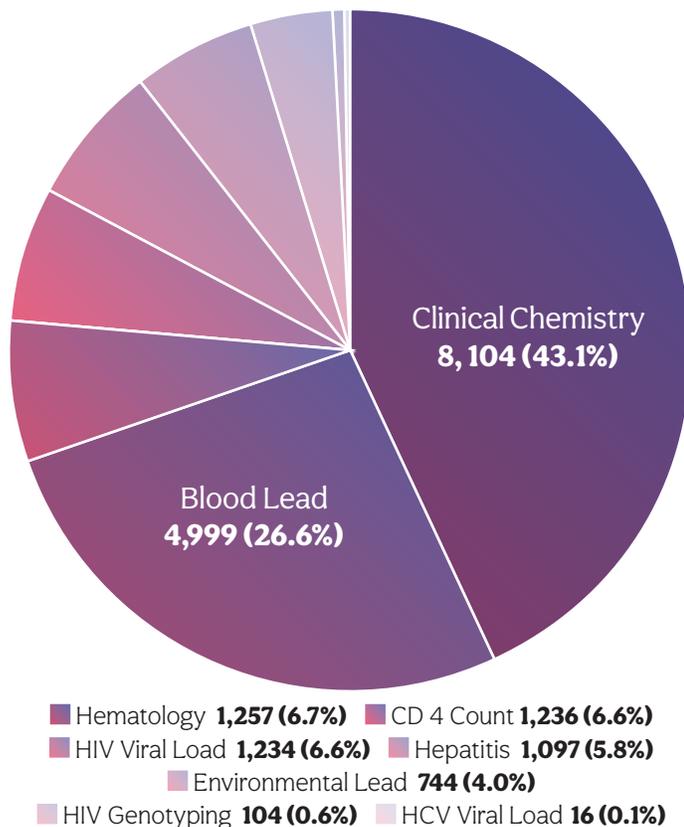


the private sector. The number of partners using the BCL's web portal continued to grow over the past year, increasing to over 400 accounts during the pandemic. This portal has proven to be a beneficial tool for timely reporting. The LIMS for the NBS Laboratory does not receive electronic requests but contains tools that facilitate billing, follow-up, and intervention. There is also a secure remote viewer for registered providers to retrieve NBS test results.

Clinical Chemistry Specimens Processed and Analyzed

The Clinical Services Branch receives specimens from county health departments, federally qualified health centers, and community-based human immunodeficiency virus (HIV) treatment programs to support the clinical management of their patients. This branch performs routine chemistry profiles, hepatitis screenings, complete blood counts, and CD4/CD8 T-lymphocyte subset enumeration. Analysis is performed by quantitative polymerase chain reaction (PCR) for HIV and hepatitis C (HCV) viral load and for HIV genotype testing to determine drug resistance. This branch continues testing for an ongoing hepatitis A outbreak. In 2021, the addition of the Roche Cobas 6800 platform allowed the branch to add COVID-19, influenza A and influenza B testing to its arsenal of assays. The ability to test all three analytes on a single specimen benefited surveillance in recognizing respiratory disease. The Clinical Services Branch processed and analyzed 13,048 specimens during 2021. The Lead Branch conducts testing for both environmental lead and testing in support of the department's Childhood Lead Program. The Lead Branch processed and analyzed 5,743 specimens during 2021.

Figure 6. 2021 Clinical Chemistry Specimens Processed and Analyzed



Infectious Disease Testing - Microbiology

Outbreaks: The Emerging Infectious Disease (EID) Branch continued to respond to the COVID-19 crisis by establishing an additional multiplex PCR assay for detecting COVID-19 and influenza and by implementing sequencing capability for COVID-19. The branch tested over 14,600 respiratory samples by PCR and sequenced 1,309. Seventy-two cases of influenza were detected. Three hundred twenty-seven specimens were tested on a respiratory panel for surveillance that detected rhino/enterovirus, adenovirus, coronavirus NL63, coronavirus 229E, coronavirus OC43, human metapneumovirus, parainfluenza 3, parainfluenza 4, influenza AH3, and respiratory syncytial virus (RSV) type B.

As a participant in PulseNet, a national laboratory foodborne illness surveillance network that uses molecular techniques to detect outbreak clusters, the branch performed whole genome sequencing on 601 isolates.

Seventy-two specimens associated with gastrointestinal outbreaks were analyzed. Of these, norovirus, sapovirus, astrovirus, *Clostridium difficile* toxin, enteropathogenic *Escherichia coli*, and enteroaggregative *Escherichia coli* were identified.

For meningococcal disease surveillance, 56 *Haemophilus influenzae* were serotyped and 7 *Neisseria meningitidis* were serogrouped.

The Conventional Microbiology Branch continued the partnership with CDC and Jefferson County Department of Health for the Gonococcal Isolate Surveillance Project to track antibiotic resistance trends in *Neisseria gonorrhoeae*. One hundred sixty-nine specimens were collected and sent to the Antibiotic Regional Laboratory Network (ARLN) where they were collated and analyzed. This branch also continued screening for carbapenem-resistant *Enterobacteriaceae*, *Pseudomonas aeruginosa*, and *Acinetobacter baumannii*. One hundred fifteen specimens were forwarded to the ARLN for enhanced surveillance. This collaborative testing confirms that *Klebsiella pneumoniae* carbapenemase-producing bacteria continues to be endemic in the state.

Preparedness: The Biological Terrorism Laboratory responded to suspected cases of botulism where one was confirmed as botulinum toxin B. Three clinical samples were received as suspicious of being an agent of bioterrorism. *Brucella* was detected in one.

The Chemical Terrorism Laboratory participated in one materials inventory, one analyte exposure exercise, and one specimen packaging and shipping exercise in 2021. In addition, the staff assisted with the COVID-19 response. The section also collaborated with the Office of Radiation Control to acquire equipment in development of an environmental radiation testing program at the new laboratory with hopes of a new section for radiation testing becoming operational in 2022.

NBS

State law mandates every newborn be tested for certain metabolic, endocrine, hematological, and other genetic disorders. Initial screening is performed at birth, and a second screening is recommended at 2 to 6 weeks of age. The laboratory screens approximately 150,000 specimens for 48 different disorders

translating to about 6 million total tests performed annually. Early identification of a potential disorder makes it possible to provide care for the newborn, often before symptoms appear, and helps ensure these infants receive life-saving treatments.

Tuberculosis (TB) and Fungal Infections

The Mycobacteriology Branch received 5,382 specimens for isolation and identification of *Mycobacterium tuberculosis* complex as well as species of non-tuberculous mycobacteria (NTM). Using PCR-based technology, the TB Laboratory can confirm new smear-positive patients in 2 hours. The TB Laboratory works with and provides TB Control staff genotyping data generated by the Michigan Department of Community Health. Both this PCR-based technology and genotyping information have been assets during outbreak investigations as they aid in determining their origins. The TB Laboratory uses Matrix Assisted Laser Desorption/Ionization-Time of Flight technology to rapidly identify NTM. The Mycotics Branch reported eight endemic yeasts (*Cryptococcus neoformans* and *Cryptococcus* species). A total of 752 specimens were received in this branch from county health departments and private providers. Mycobacteriology and Mycotics test specimens for COVID-19, influenza A, influenza B, and RSV used PCR-based technology. Together they tested 1,663 specimens in which 368 tested positive for SARS-CoV-2, 1 tested positive for influenza A, 1 tested positive for influenza B, and 22 tested positive for RSV. This branch also supported expedited testing to help mitigate the spread of COVID-19 among department employees.

HIV and STD Testing

The Prattville STD Division performed molecular testing for COVID-19 from January through March 2021. The STD Division received 1,944 COVID-19 samples with 306 (15 percent) testing positive. The incidence rates for chlamydia (9.2 percent), gonorrhea (5.5 percent), trichomoniasis (8.6 percent), syphilis (8.3 percent), and HIV (1.3 percent) showed slight changes for women and men attending adult health and STD clinics. The STD Branch received 218,988 specimens and performed 217,458 tests. CT-GC-TV infections are detected using a nucleic acid test. The Bio-Rad BioPlex 2200 instrument is used to perform multiplex assays for syphilis and HIV testing. The CDC's reverse algorithm is followed for syphilis testing. The initial screening test for syphilis is a multiplex treponemal IgG/IgM immunoassay test which also produces results for the nontreponemal Rapid Plasma Reagin (RPR) test to determine past or recent infections. The RPR portion of the assay was reported using the Beckman Dickinson RPR manual test from January to June 2021. In June 2021, automated RPR resumed on the Bio-Rad BioPlex 2200 instrument. The BioPlex 2200 HIV Antigen/Antibody (Ag/Ab) Assay is performed to screen for HIV infections. This multiplex assay produces individual results for HIV1Ag, HIV1Ab, and HIV2Ab. When an HIV screen is positive, an antibody or nucleic acid test is used to confirm the infection.

Mobile Division Laboratory

Shellfish/Beaches Environmental Assessment and Coastal Health (BEACH)/Harmful Marine Phytoplankton Branch

The Mobile Division Laboratory collaborates with the Alabama

Figure 7. Total Results Reported STD CT/GC/TV 2021

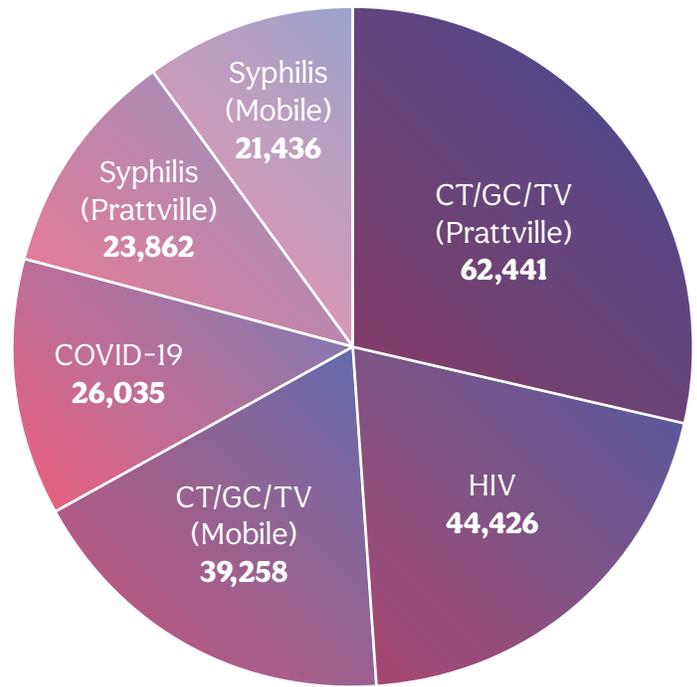
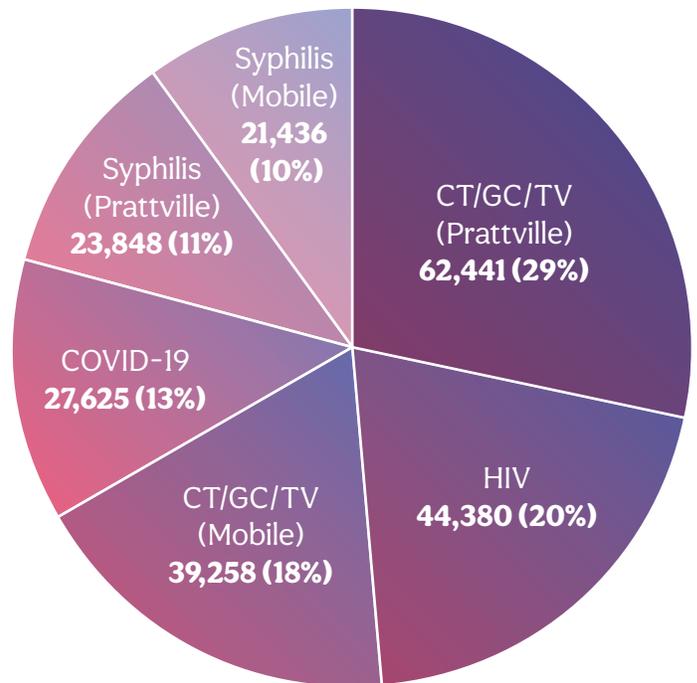


Figure 8. Total Specimens Received 2021



Department of Environmental Management (ADEM) to meet EPA's BEACH Act requirements. Eight hundred, thirty samples from coastal waterways were analyzed and reported. The division collaborates with committees of the Interstate Shellfish Sanitation Conference and Gulf of Mexico Alliance to promote laboratory interests in commercial and environmental projects. The laboratory also supports oyster growing water monitoring and harmful algal bloom (HAB) analysis. Laboratorians analyzed and reported results for 377 samples collected from coastal waterways for HAB monitoring. In addition, 1,068 water samples from oyster growing areas were tested in compliance with National Shellfish Sanitation Program guidelines. Oyster growing,

and harvest areas require monitoring for bacterial contamination and HAB concentrations to ensure a safe supply of shellfish. In efforts to achieve ISO 17025:2017 accreditation, crab meat analysis for *Escherichia coli* and *Listeria* continues as the laboratory works to improve methodology through equipment automation. The division continues to gain FDA approval to establish a *Karenia brevis* enzyme-linked immunosorbent assay confirmation method. The division performs testing and collaboration in a partnership with the state of Mississippi, as its shellfish testing capabilities are developed.

Mobile Division Clinical Branch

The Mobile Clinical Branch performs CT-GC-TV and syphilis testing with the same instrumentation and methods as does the STD/Chemistry Division. The laboratory performed 39,258 tests for CT-GC-TV and tested 21,436 specimens for syphilis. The Urine Culture and Sensitivity Branch analyzed 433 specimens for pathogens and antimicrobial sensitivity.

Mobile Division Environmental Testing

The Drinking Water Section tested 5,915 samples from public systems and private wells in support of the Safe Water Act under contract with ADEM.

Sanitary Bacteriology/Media Division (Prattville Campus)

The Sanitary Bacteriology/Media Division tests dairy products, public and private water, and fluoride samples as well as prepares media used by both the county health departments and the BCL. Testing was conducted on 1,612 dairy samples to include raw producer, tank truck, and finished dairy products. Testing was performed on 803 fluoride samples. The laboratory provides proficiency testing for the milk laboratories in the state. Working with FDA, five milk laboratories were inspected for compliance with state and federal regulations. The laboratory tested 2,844 public and private water samples in support of the Safe Water Act. While continuing work with ADEM, 10 public water utility laboratories were inspected for compliance with state and federal regulations. The Media Branch made 1,103 liters of media in support of the NBS, Microbiology, Milk and Water, Mycology, TB, and EID programs.

Rabies (Mobile and Prattville)

Mobile and Prattville laboratories both test animals for rabies. Of the 1,449 animals received for testing, 46 were positive for the rabies virus. Notably, the presence of a positive donkey and multiple positive fox, skunk, and raccoon specimens generated significant public health interest.

BUREAU OF COMMUNICABLE DISEASE

The bureau's mission is to prevent and control designated communicable diseases and illnesses in Alabama. The bureau consists of the following divisions: Immunization (IMM), Infectious Diseases and Outbreaks (ID&O), Sexually Transmitted Diseases (STD), and Tuberculosis (TB) Control.

IMM

The division's goal is to reduce vaccine-preventable diseases and increase immunization rates. The division has four branches: Surveillance, Registry (ImmPRINT), Vaccines for Children (VFC) and Immunization Quality Improvement Program (IQIP), and Administration.

The Surveillance Branch conducts the Alabama School Survey, in conjunction with the Alabama Department of Education and private schools. This survey evaluates the immunization status of all children to ensure they have a current Certificate of Immunization (COI) or a valid exemption on file in compliance with the 2009 School Immunization and Rules. In the 2020-2021 Annual School Entry Survey, all medical and religious exemptions combined continue to be less than 1.5 percent (1.18) for students in public and private schools. The percent of students with expired and no COI was 3.69, a decrease from the previous year by 17.8 percent. In addition, the branch oversees vaccine-preventable disease investigations statewide. IMM field staff investigate vaccine-preventable disease reports submitted by notifiable disease reporters and

laboratories. In 2021, the field staff investigated and confirmed 923 cases of diseases. In addition, they continued to investigate a large ongoing hepatitis A outbreak. The outbreak started in 2018 and continues. As of December 31, 2021, there were 1,627 confirmed cases in 63 counties across Alabama.

The Vaccines for Children (VFC) Branch manages Alabama's VFC program, a federal entitlement program that provides vaccine at no cost to providers who see children under 19 years of age who are uninsured, Medicaid-eligible, underinsured, American Indian, or Alaskan Native. As of December 2021, 511 enrolled public and private providers received approximately \$75 million worth of vaccines. As part of the vaccines distributed, the VFC Program provided 172,380 doses of seasonal influenza vaccine to providers in all 67 counties. IMM field staff perform regulatory VFC site visits and IQIP assessment visits on 50 percent of enrolled providers to promote proper vaccine storage and handling, accurate and safe administration of vaccine, and vaccine coverage improvement. The branch also manages the federal Section 317 funding for vaccines for uninsured/underinsured adults. As of December 2021, the branch distributed over \$68,800 (1,880 doses) of 317-funded adult hepatitis A vaccine to providers throughout the state for use during the hepatitis A outbreak.

The Registry Branch manages the state's immunization registry, ImmPRINT, for all residents of Alabama. Sites can submit vaccine information manually or by electronic interface. The branch coordinates the interfaces between ImmPRINT and providers' electronic medical record who submit

Figure 9. Cases Classified As Vaccine-Preventable Disease Cases in Alabama

Disease	2016	2017	2018	2019	2020	2021
Diphtheria	0	0	0	0	1	0
<i>H. influenzae</i>	79	86	127	119	46	78
Hepatitis A	0	21	40	225	922	399
Hepatitis B	0	21	40	64	48	68
Measles	0	1	0	0	0	0
Meningococcal	5	4	5	3	3	6
Mumps	2	35	17	15	0	0
Perinatal Hepatitis B	0	0	0	0	0	0
Pertussis	165	226	225	220	153	38
Polio	0	0	0	0	0	0
Rubella	0	1	0	0	1	0
<i>Strep. pneumoniae</i>	341	375	554	372	273	294
Tetanus	1	1	0	0	0	0
Varicella	100	93	93	85	17	40
Total	693	864	1,101	1,103	1,464	923

Figure 10. Number of Vaccines Submitted to ImmPRINT

Year	Source	Number of Vaccine Submitted	Grand Total
2015	Manual	304,407	1,439,168
	HL7	1,134,761	
2016	Manual	453,800	1,846,835
	HL7	1,393,035	
2017	Manual	436,133	2,067,434
	HL7	1,631,301	
2018	Manual	410,401	1,906,688
	HL7	1,496,287	
2019	Manual	1,904,806	4,012,717
	HL7	2,107,911	
2020	Manual	1,337,078	3,978,095
	HL7	2,641,017	
2021	Manual	2,540,025	8,523,277
	HL7	5,983,252	

Figure 11. Number of Active Sites Recorded in ImmPRINT

Year	Source	County Health Department	Clinic	FQHC/RHC	Hospital	Pharmacy	Schools	Childcare Center	Sub-Total	Grand Total
2015	Manual	68	432	68	23	36	546	2	1,175	3,532
	HL7	7	595	86	56	333	0	0	1,077	
2016	Manual	69	571	78	27	60	1,578	3	2,386	3,489
	HL7	5	606	86	60	346	0	0	1,103	
2017	Manual	71	685	86	34	109	1,664	242	2,891	4,057
	HL7	5	655	89	63	354	0	0	1,166	
2018	Manual	71	801	98	41	241	1,701	339	3,292	4,572
	HL7	4	720	99	66	391	0	0	1,280	
2019	Manual	39	818	88	38	304	1,627	314	3,228	4,623
	HL7	37	648	106	62	542	0	0	1,395	
2020	Manual	71	761	145	77	404	853	0	2,311	3,551
	HL7	63	463	89	55	570	0	0	1,240	
2021	Manual	1	1,015	68	40	361	1,710	579	3,774	5,710
	HL7	72	807	159	81	771	46	0	1,936	

vaccine information, which includes bi-directional (2-way) communication. In 2021, there were over 5,710 providers who were actively submitting vaccine information into ImmPRINT, with approximately 8,523,277 vaccinations submitted during that time period. There are over 6.8 million patients of all ages and over 75 million vaccine doses recorded in ImmPRINT. ImmPRINT is also the system in which COVID-19 vaccine providers were enrolled and submitted COVID-19 vaccine orders in 2021.

The Administration Branch manages state and federal budgets with over 50 staff statewide, including contracts, grants, payroll, leave, and personnel.

COVID-19 Pandemic

In November 2019, a novel coronavirus (SARS-CoV-2) was discovered in Wuhan, China. In December 2019, the department began gathering information and planning for a possible epidemic of large-scale proportions. In September and October 2020, IMM staff, with support from other divisions within the department, submitted the Alabama COVID-19 Vaccination Plan to CDC and prepared for the distribution of COVID-19 vaccine through the ImmPRINT system. In November and December 2020, the program started enrolling providers throughout the state in preparation to distribute COVID-19 vaccine. Enrollment of providers included setting up accounts in ImmPRINT, training providers on the use of ImmPRINT, validating providers, validating vaccine storage units, and educating providers about general immunization practices and standards. By December 30, 2020, there were 561 approved providers (clinics, hospitals, pharmacies) statewide which were starting to receive vaccine. By December 31, 2021, the number of approved providers – which grew to include colleges and universities, churches, dialysis centers, correctional facilities, mobile vaccination sites – was 1,500 individual sites statewide. Since the start of the distribution of COVID-19 vaccine in December 2020, the division has distributed over 4.4 million doses of COVID-19 vaccine to enrolled providers throughout the state.

ID&O

The mission of the ID&O Division is to protect the health of Alabama residents by monitoring and investigating select infectious, zoonotic, and environmental diseases and events. Figure 12 demonstrates the number of disease reports that were counted as cases according to the criteria established by the Council of State and Territorial Epidemiologists and the CDC in 2021 as compared to the previous 4 years.

Outbreak Investigations

ID&O defines an outbreak as the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time linked to a common exposure; a cluster is defined similarly, except a common exposure is not identified. Single cases or exposures related to certain rare and serious conditions, such as gastrointestinal anthrax, botulism, rabies, or healthcare-associated *Legionella*, may illicit an outbreak-like response. All reporters, as outlined in the Notifiable Disease Rules, are required to report outbreaks of any kind within 24 hours of presumption. In 2021, 695 outbreaks and clusters were investigated; of those, 83 percent were respiratory. Interdisciplinary, collaborative efforts among state and federal partners aided in the identification of causative agents, likely modes of transmission, and underlying environmental causes of illness.

COVID-19 Pandemic Response

In 2021, Alabama reported 525,916 cases and 9,310 deaths associated with COVID-19. This represents a significant increase in both cases (36 percent) and deaths (30 percent) as compared to 2020. Much of this is due to the emergence of the Delta variant in April and the Omicron variant in December. As a result, ID&O, with support from the department, continued conducting the following activities:

- Investigation of positive cases
- Contact tracing
- Data collection
- Analyzing and visualizing data

Figure 12. Select Alabama Notifiable Disease Case Counts, by Year*

Diseases	2017	2018	2019	2020	2021
Acute Flaccid Myelitis	--	--	0 [†]	0	0
Anthrax	0	0 [†]	0	0	0
Arboviral Diseases (excludes Chikungunya Virus, Dengue, and Zika Virus)	62	28	6	8	12
Babesiosis	1	0	0	1	1
Botulism	0	0	1	1	0
Brucellosis	0	1	4	1	0
Campylobacteriosis	790	783	754	657	584
Chikungunya Virus (travel related)	1	0	0	0	0
Cholera	0	0	0	0	0
Coccidioidomycosis	--	--	9	5	10
Cryptosporidiosis	189	152	225	137	89
Cyclosporiasis	--	--	5	3	6
Dengue (travel related)	0	2	3	0	1
<i>E. coli</i> , Shiga Toxin-producing (includes O157: H7)	31	129 [†]	138	98	113
Ehrlichiosis/Anaplasmosis	17	24	39	12	24
Giardiasis	191	217	164	128	120
Hansen's Disease (Leprosy)	1	0	1	1	0
Hantavirus Pulmonary Syndrome	--	--	0	0	0
Hemolytic Uremic Syndrome (HUS)	0	3	6	3	2
Hepatitis E, Acute	0	0	0	0	0
Influenza-associated Non-pediatric Mortality	--	257	93	19	28
Influenza-associated Pediatric Mortality	1	2	2	1	0
Legionellosis	66	76	72 [†]	57	74
Leptospirosis	0	1	0	0	0
Listeriosis	5	11 [†]	7	13	11
Lyme Disease	39 [†]	36	66	15	47
Malaria (travel related)	8	9	9	2	8
Novel Coronavirus	--	--	--	387,472 [†]	525,916 [†]
Novel Influenza A Virus Infection	0	0	0	0	0
Paratyphoid Fever	3	6 [†]	0 [†]	2	1
Plague	0	0	0	0 [†]	0
Psittacosis	0	0	0	0	0
Q Fever	0	2	2	0	2
Rabies, Animal	51	55	50	50	43
Rabies, Human	0	0	0	0	0
Salmonellosis	1,129 [†]	1,198 [†]	1,001	873	749
Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)	0	0	0	0	0
Shigellosis	247 [†]	320	431	340	78
Smallpox	0	0	0	0	0
Spotted Fever Rickettsiosis	671	673	476 [†]	89	119
Toxic Shock Syndrome (Non-streptococcal)	--	--	0	0	0
Trichinellosis (Trichinosis)	0	0	0	0	1
Tularemia	1 [†]	0	4	1	0
Typhoid Fever	1	1	0	1	6
Vibriosis (Non-cholera)	26 [†]	38	41	20	20
Viral Hemorrhagic Fever	0	0	0	0	0
VISA (<i>Staphylococcus aureus</i> , Vancomycin-Intermediate)	4	1	1	0	1
VRSA (<i>Staphylococcus aureus</i> , Vancomycin-Resistant)	0	0	2	1	0
Yellow Fever (travel related)	0	0	0	0	1
Zika Virus (travel related)	4	3	0	0	1
Other Investigations	0	0	3	0	1
Total	3,539	4,028	3,615	389,100	527,253

*Preliminary counts include finalized investigations among Alabama residents as of December 17, 2021. These case counts do not include those for conditions investigated by other divisions (TB, IMM, STD).
[†]The other investigations category includes a variety of conditions or events that have been investigated

but are not reportable in Alabama or do not fall into any other category (such as histoplasmosis, streptococcal toxic-shock syndrome, yersiniosis).
[†]The case definition was updated this year for this condition.

- Reporting to local, state, and national platforms
- Monitoring and responding to long-term care facility and school outbreaks
- Mining data for outbreaks and clusters
- Conducting death investigations
- Providing quarantine orders and guidance to the public and healthcare partners
- Conducting whole genome sequencing

COVID-19 remains the largest outbreak of a single disease in over 100 years in Alabama. Although COVID-19 outbreaks, clusters, deaths, and investigations were still the primary focus for ID&O in 2021, activities regarding other infectious diseases resumed to pre-COVID-19 status.

Arboviral (Mosquito-borne) Surveillance

In 2021, ID&O investigated 27 reports of suspected human arboviral illness; of which, 52 percent were determined to be cases. The majority of investigations were for West Nile virus (WNV). Of the cases identified, 12 were WNV, 1 Zika virus (travel related), and 1 dengue (travel related). WNV remains an ongoing threat to Alabamians.

Influenza Activity

CDC described the 2020-2021 peak seasonal influenza activity (September 27, 2020 – May 22, 2021) in the United States as lower than usual for this time of year. The nationwide influenza-like illness (ILI) percentage remained below the national baseline of 2.6 percent throughout the season. Only one influenza-associated pediatric death was reported in the United States. CDC reports 193.8 million doses of influenza vaccine were distributed.

On March 13, 2020, the department reported its first case of COVID-19. On April 3, 2020, Governor Kay Ivey issued a stay-at-home order and strict quarantine requirements, followed by a statewide mask mandate on July 16, 2020. As a result, there were fewer outpatient visits reported for ILI, while the number of visits for COVID-19-like illness increased.

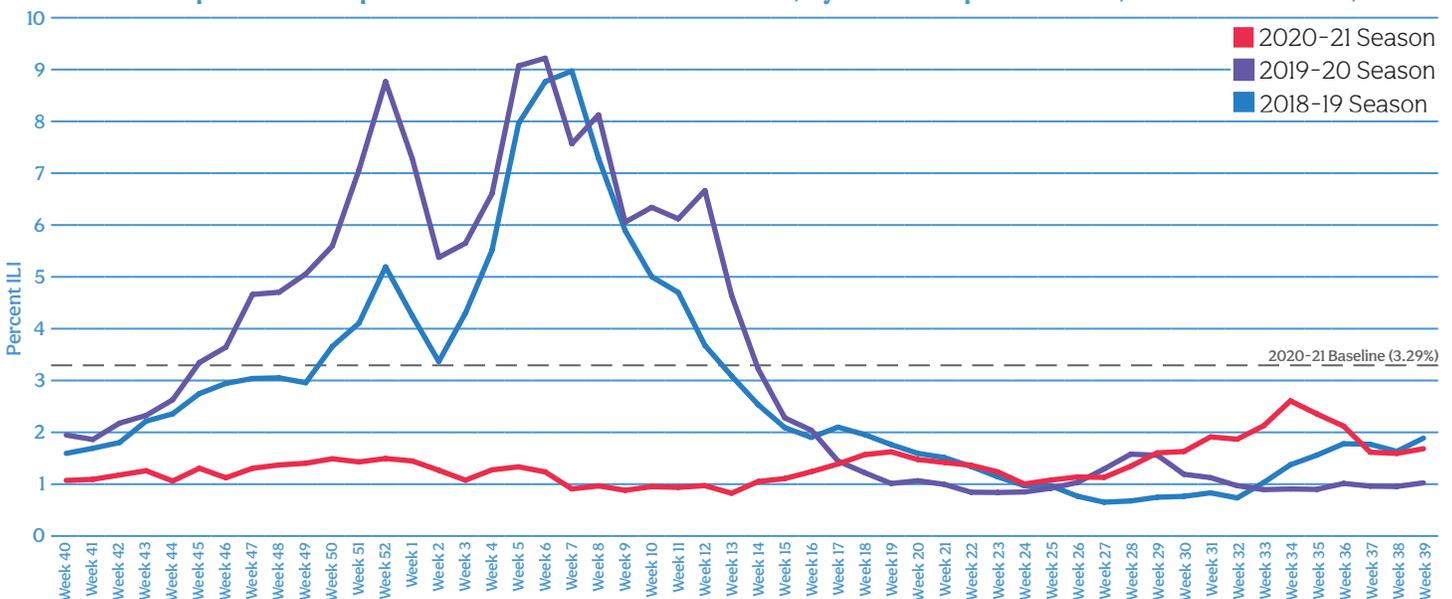
Weekly reporting began for the 2020-2021 influenza season on September 27, 2020 (week 40). Alabama's statewide ILI percentage remained below the 3.29 percent baseline throughout the season. By April 9, 2021, the statewide mask mandate was lifted, and the public was encouraged to exercise personal responsibility to slow the spread of COVID-19. After the mask mandate was lifted, ILI activity in Alabama began to increase each week from 1.02 percent to 1.66 percent between weeks ending April 10, 2021 (week 14), and May 15, 2021 (week 19). Although ILI activity began to decrease (1.52 percent) in the week ending May 22, 2021 (week 20), another spike was observed in the week ending August 28, 2021 (week 34).

In addition to ILI surveillance, the strains most frequently detected statewide were influenza A (H1N1), influenza A (not subtyped), and influenza B (not subtyped). Other respiratory pathogens circulating in Alabama during this same time period were human rhinovirus/enterovirus; respiratory syncytial virus; adenovirus; human coronaviruses OC43, 229E, and NL63; and COVID-19. One influenza or ILI outbreak was reported during the 2020-2021 season. Lastly, there were 22 non-pediatric and no pediatric influenza-associated deaths reported. Figure 13 illustrates the percentage of provider visits with ILI each week during the 2018-2019, 2019-2020, and 2020-2021 influenza seasons.

Healthcare-Associated Infections (HAIs)

Alabama remains committed to reducing HAIs in its hospitals. Alabama hospitals began reporting four infection measures to the department in 2011: catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSIs), surgical site infections (SSIs) associated with colon surgeries, and SSIs associated with abdominal hysterectomies. In 2020, Alabama hospitals had significantly fewer CAUTIs, colon, and abdominal hysterectomy SSIs than predicted using national baseline data. CLABSIs were statistically similar to the numbers predicted.

Figure 13. Percentage of outpatient visits for ILI remained below baseline throughout the 2020-2021 season as compared to the previous two seasons in Alabama, by week (September 30, 2018 – October 8, 2021)



Rabies

In 2021, the department investigated 5,432 potential rabies exposures. The BCL performed 1,236 rabies tests as of December 15. ID&O confirmed 43 rabies cases. Of the confirmed cases, 88 percent were identified in wild animals (including bats, bobcats, foxes, coyotes, and raccoons) and 12 percent were identified in domestic animals (including cats and dogs). Animal case counts include animals tested at the BCL, as well as positives reported from the U.S. Department of Agriculture Wildlife Services. News releases were issued when positive cases occurred to provide education about rabies in wildlife and highlight the importance of vaccination of domestic animals.

STD

Primary and Secondary Syphilis

In 2021*, 697 Alabama residents were diagnosed with primary and secondary syphilis infection. This case count corresponds to a rate of 13.9 cases per 100,000 population. This represents a 33.5 percent increase from the number of cases reported in 2020. Nearly 67.6 percent of the primary and secondary syphilis cases reported in 2021* were residents of Mobile (140 cases),

Figure 14. Reported Laboratory-Confirmed Animal Rabies Cases in Alabama, 2021

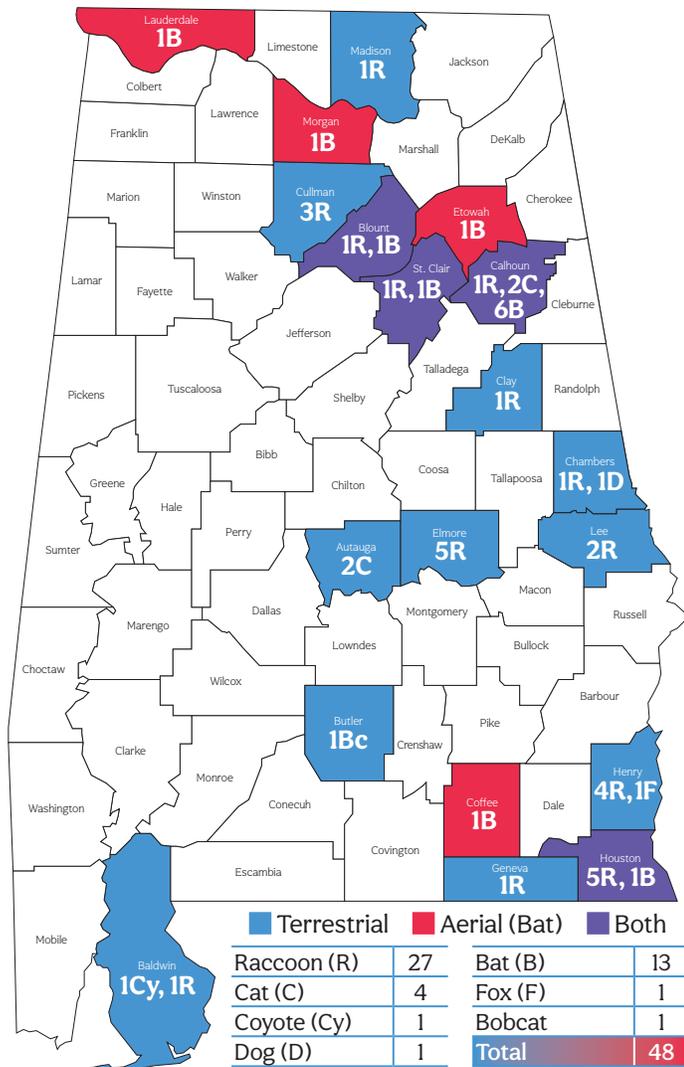
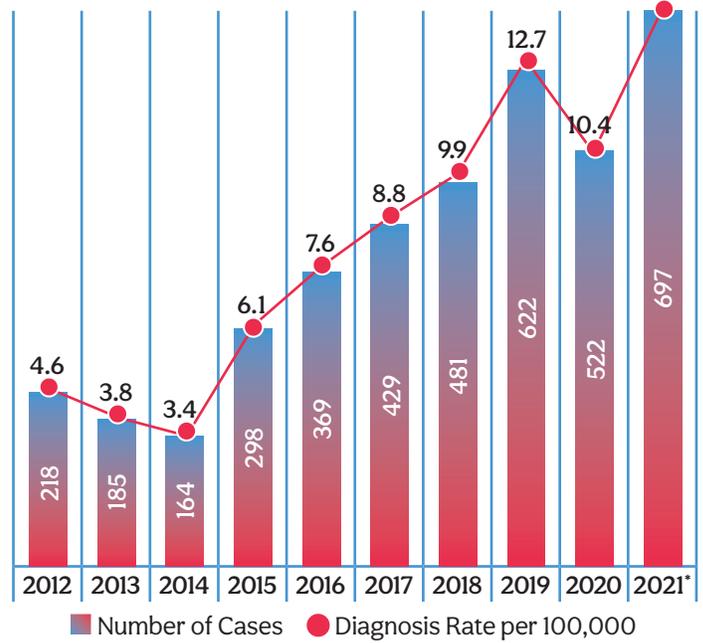


Figure 15. Primary and Secondary Syphilis Cases, Alabama 2012-2021*



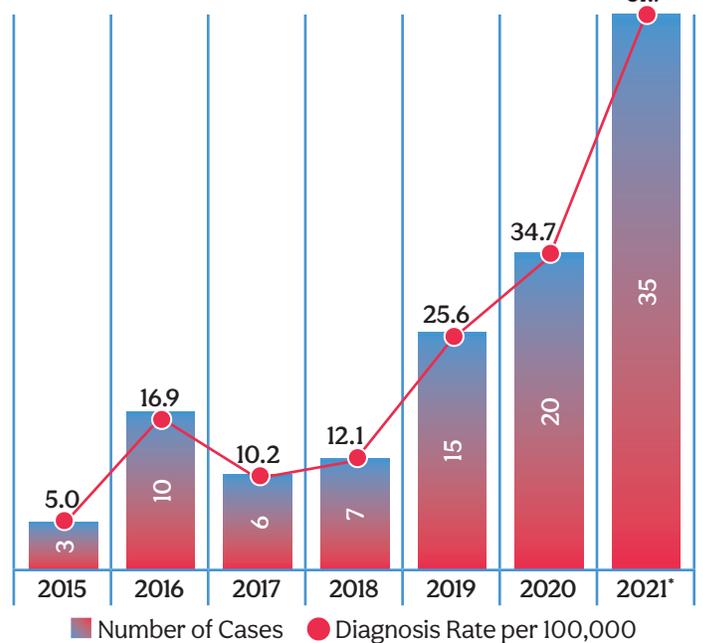
*Total 2021 case counts will not be finalized until June 2022.

Jefferson (120 cases), Montgomery (59 cases), Tuscaloosa (54 cases), Madison (35 cases), Houston (21 cases), Lauderdale (21 cases), and Shelby (21 cases) counties.

Congenital Syphilis

The department received 35 reported cases of probable congenital syphilis in 2021. All 35 mothers received health insurance coverage from the Alabama Medicaid Agency. Although this is a partial report, it represents a 75 percent increase in reported congenital syphilis cases from 20 in 2020 to 35 in 2021.

Figure 16. Congenital Syphilis Cases, Alabama 2015-2021*



*Total 2021 case counts will not be finalized until June 2022.

Alabama saw a 1,067 percent increase in reported congenital syphilis cases between 2015 and 2021. Congenital syphilis rates increased from 5.0 per 100,000 live births in 2015 to 61.7 per 100,000 live births in 2021*. To stop the increasing number of cases, ADPH is recommending prenatal screening for syphilis in all pregnant women during the initial prenatal visit, at 28 to 32 weeks' gestation, and at delivery. According to the CDC, obstetricians must treat pregnant women with a positive syphilis test at least 30 days before delivery to prevent maternal transmission.

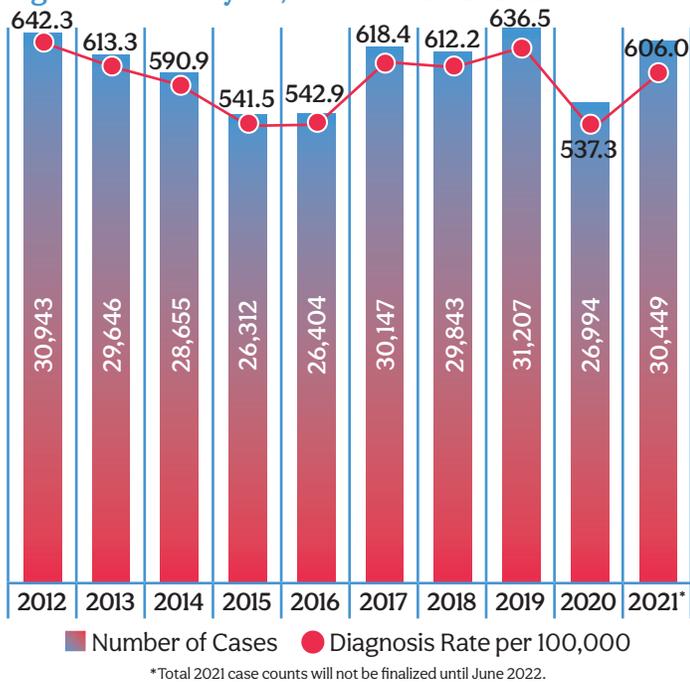
Chlamydia

In 2021*, 30,449 cases of *Chlamydia trachomatis* infection were reported to the department. This case count equals to a rate of 606.03 cases per 100,000 population. This reflects a 12.8 percent increase in chlamydia cases from the previous year.

More than 51 percent of the chlamydia cases reported in 2021* were residents of Jefferson (5,769 cases), Mobile (3,077 cases), Montgomery (2,619 cases), Madison (2,327 cases), and Tuscaloosa (1,850 cases) counties.

Persons age 20-24 and age 15-19 accounted for 38.3 percent and 28.5 percent of the chlamydia cases reported in 2021*, respectively, which demonstrates the need to engage adolescents and young adults in discussions on sexual health topics.

Figure 17. Chlamydia, Alabama 2012-2021*

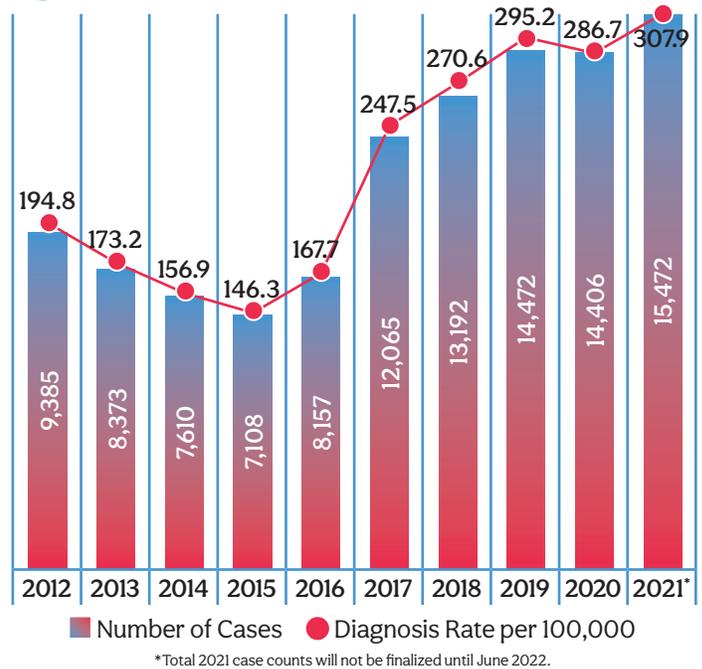


Gonorrhea

In 2021*, a total of 15,472 cases of *Neisseria gonorrhoeae* infection were reported to the department. This case count corresponds to a rate of 307.9 cases per 100,000 population. The number of gonorrhea cases reported to the department increased by nearly 7.4 percent from the previous year.

Nearly 55 percent of the gonorrhea cases reported in 2021* were residents of Jefferson (3,365 cases), Mobile (1,646 cases), Montgomery (1,331 cases), Madison (1,255 cases), and Tuscaloosa (877 cases) counties.

Figure 18. Gonorrhea Cases, Alabama 2012-2021*



Persons age 20-24, age 15-19, and age 25-29 accounted for 32.1 percent, 20.0 percent, and 19.9 percent of the gonorrhea cases reported in 2021*, respectively.

HIV Investigations and Interviews

The division initiated HIV investigations for 850 patients* (individuals with positive laboratory results and contacts), and 545 patients were classified as newly diagnosed HIV cases. Nearly 62 percent of the initiated HIV investigations reported in 2021* were residents of Jefferson (234 cases), Mobile (88 cases), Montgomery (84 cases), Madison (49 cases), Tuscaloosa (37 cases), and Houston (32 cases) counties. STD disease intervention specialists successfully interviewed 474 of the 545 patients with newly diagnosed HIV infections. Two hundred fourteen patients were classified as men who have sex with men. Investigators classified 95 women as contracting HIV through heterosexual activity.

More than 77 percent of the interviewed HIV cases reported in 2021* were residents of Jefferson (127 cases), Mobile (74 cases), Montgomery (51 cases), Madison (35 cases), Tuscaloosa (30 cases), Houston (17 cases), Shelby (17 cases) and Lee (16 cases) counties.

In 2021, the STD workforce referred 467 HIV patients for specialized HIV medical services, and 429 HIV patients were confirmed to have accessed service. Of the referrals, 296 accessed service within 14 days, 90 within 30 days, and 43 after 30 days. The appointment status of the remaining 38 patients was as follows: No access, 22; pending services, 12; lost to follow-up, 2; and previous positive in care, 2.

HIV Care Re-Engagement

The division, in collaboration with the HIV Surveillance Branch, identified 1,075 HIV patients* who had fallen out of care for 12-18 months. HIV care re-engagement activities were

initiated on 1,061 patients. STD disease intervention specialists determined 386 patients were in care, were unable to determine status on 267 patients, 137 patients resided outside jurisdiction, and 81 patients were deceased. Of the 190 patients STD staff determined not to be in care, 42 patients were successfully linked back to care.

*Total 2021 case counts will not be finalized until June 2022.

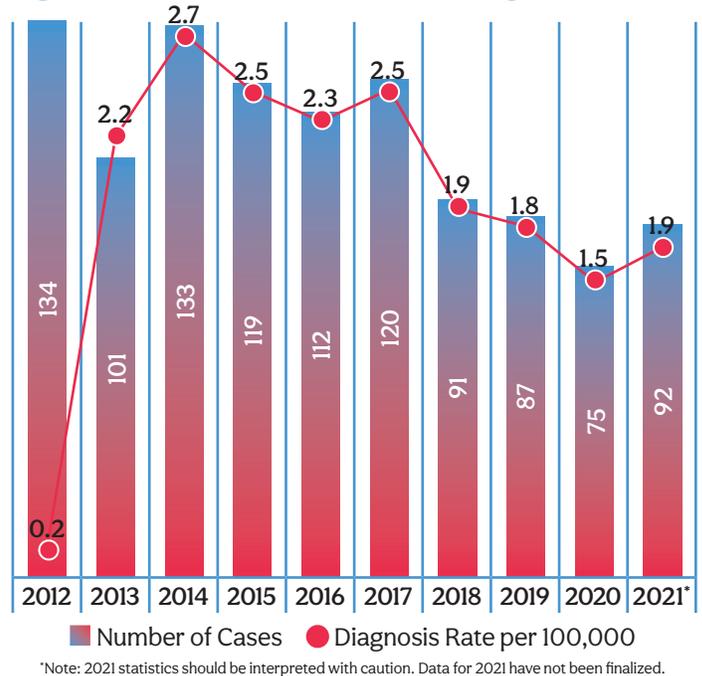
TB Control

The ultimate goal of the Division of TB Control is to eliminate TB in Alabama. Until that goal is reached, the division strives to reduce the annual burden of disease, limit transmission, and prevent future cases through the provision of diagnostic, treatment, case management, and contact investigation activities. The division provides these services to all persons in Alabama regardless of the ability to pay. This commitment to the citizens of Alabama has contributed to a historic decline in morbidity. In 2021, the division confirmed active TB disease in 92 patients. This figure represents a 22.67 percent increase in confirmed cases compared to 75 cases in 2020.

The 10-year trend in confirmed active cases of TB, as illustrated, reveals an overall decline of 36.57 percent in verified TB cases (from 2012 to 2021). The morbidity reported over the past 5 years has demonstrated progress in the continuing decline of reported TB cases. During the past 5 years, Alabama has reported an average of 92 cases per year, a 28-case decrease compared to the 120 cases reported in 2017.

In addition to the identification, evaluation, and treatment of persons with active TB, the division seeks to prevent future cases through prompt identification and medical evaluation of contacts at risk for exposure, and to assure the initiation and completion of preventive therapy for those contacts diagnosed with latent TB infection (LTBI). Preliminary data for 2021 shows that 589 persons were identified as contacts to TB cases classified as Acid Fast Bacilli (AFB) sputum smear positive cases, and that 506 (86 percent) of those contacts were fully evaluated. Of the number of persons who were fully evaluated, initial reports indicate

Figure 19. TB in Alabama - 2012 through 2021



that 26 of 159 (16 percent) persons were diagnosed with LTBI and were placed on preventive treatment for LTBI by division staff.

The division continues to place great emphasis on the identification of persons at high risk for progression to active TB disease. Some groups of persons who are diagnosed with LTBI infection are at increased risk for rapid progression to TB disease including persons who are close contacts to AFB smear positive cases; individuals diagnosed with certain immunocompromising medical conditions such as HIV, diabetes, and others; persons who are foreign-born from countries with a high prevalence of TB (immigrants or refugees); and persons who abuse drugs and alcohol. Treating these persons preventively protects the individual and the community at large from developing TB disease.

OFFICE OF EMERGENCY MEDICAL SERVICES (OEMS)

The OEMS is responsible for protecting the health, safety, and welfare of the public by assuring that emergency medical services (EMS) provided by response agencies, training entities, and technicians meet or exceed established standards. The OEMS investigates complaints and may exercise its authority to deny, place on probation, suspend, or revoke licensure when statutory or regulatory violation is substantiated.

Figure 20. EMS Personnel – Personnel Licensed by OEMS by License Type

License Type	Number of Personnel
Advanced Emergency Medical Technician (EMT)	1,090
Emergency Medical Responder	78
Emergency Medical Technician	6,527
Intermediate	198
Paramedic	5,314
Critical Care Paramedic	280
Total	13,490

Alabama Acute Health Systems

Trauma System

The Alabama Trauma System currently consists of 61 trauma centers, including out-of-state trauma centers. The efforts and dedication of trauma centers, EMS, the Alabama Trauma Communications Center, regional EMS, and state and regional councils working together, facilitate timely routing of trauma patients to the appropriate hospitals.

In 2021, 15,151 patients were entered into the trauma system. The most common mechanism of injury was motor vehicle related.

Alabama Head and Spinal Cord Injury Registry (AHSCIR)/ Alabama Trauma Registry (ATR)

Data collection continued for the AHSCIR and the ATR during 2021. The data is collected for two specific purposes; one of which is to provide the Alabama Department of Rehabilitation Services information, so it can contact patients to provide information on service linkage for eligible head and/or spinal cord injuries. ATR data is collected from the trauma centers for quality improvement purposes.

Stroke System

The Alabama Stroke System was activated statewide on October 30, 2017. The primary goal of the system is to maintain a stroke emergency care system that results in 100 percent tPA (tissue plasminogen activator) administration to all eligible patients as well as decreased stroke mortality and disability. Patients who are experiencing symptoms of a stroke need to be

rapidly evaluated at a hospital and treated to either reverse the stroke and minimize the damage, if possible. Because tPA must be administered within the first few hours of acute ischemic stroke onset, the system will improve the chances of survival regardless of proximity to an urban stroke center.

During 2021, 9,213 patients were entered into the stroke system. Of the 2,246 patients with ischemic stroke, 449 received tPA (20 percent) and 615 patients entered into the stroke system had hemorrhagic strokes.

The Alabama Stroke System includes 80 stroke centers, including out-of-state partners. The three designation levels of stroke centers in the system are Stroke Ready Center, Primary Stroke Center, and Comprehensive Stroke Center. ADPH continued to work with stroke professionals to develop additional treatment center designation criteria to assist in getting the patient to the appropriate stroke center for rapid evaluation and treatment. Regional EMS offices and EMS providers began training on a severity-based stroke triage tool for future implementation.

Cardiac System

CARES, the Cardiac Arrest Registry to Enhance Survival, helps communities measure performance and identify how to improve cardiac arrest survival rates. Participation in CARES is voluntary. Data is entered into the registry, so EMS services can generate their own reports for comparison to state and national benchmarks.

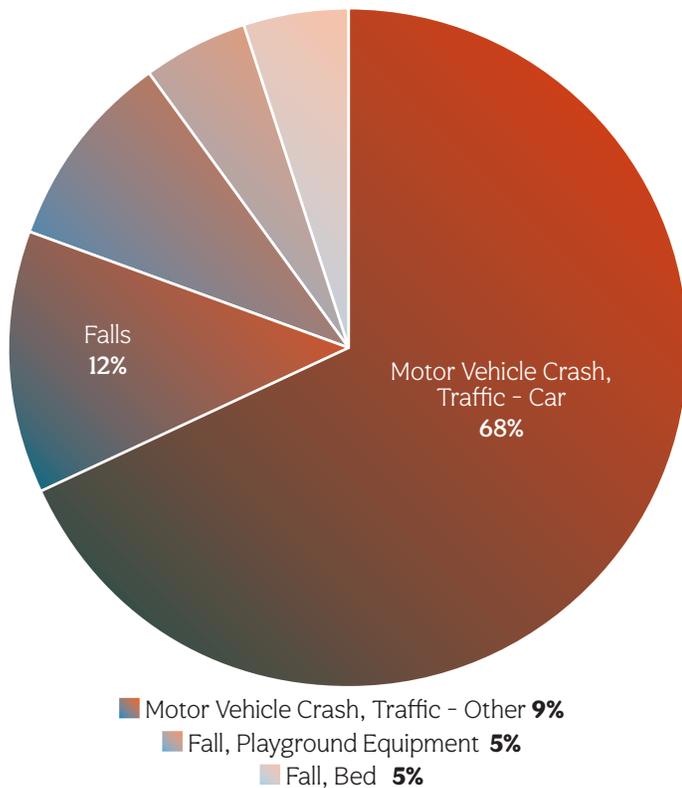
Alabama Emergency Medical Services for Children (EMSC)

The mission of the EMSC Program is to prevent and reduce child, youth, and adolescent disabilities and deaths that are the result of severe illness and injury. Several services are available through the program including education for prehospital professionals; continual permanent installation of the EMSC Program into Alabama's EMS system; and assurance that pediatric equipment, according to the American Academy of Pediatrics/American College of Emergency Physicians guidelines, is available on prehospital emergency vehicles that transport children. Figure 21 illustrates the five most common causes of injury in children.

EMS Education

Although COVID-19 restrictions were loosened in 2021, a number of clinical sites remain closed to students. All aspects of EMS education including the Committee on Accreditation of Educational Programs for the EMS Professions, the National Registry of EMTs, the OEMS, and local education programs are still making concessions and exceptions to ensure the continuous flow of education for prehospital personnel. However, most education programs are a combination of virtual and classroom lectures and labs. The vast majority have reopened the doors to in-person instruction and are working

Figure 21. Five Most Common Causes of Injury in 2021 (Children Age 0 to 18 Years Old)



with services across the state to ensure their educational needs are being met.

Provider Services

Even with a decrease in the total number of prehospital personnel over the past year, there has been a slight increase in the number of service licenses being issued. Figure 22 at right lists the licensed EMS services in Alabama.

Alabama Opioid Assistance (AOA) Project

The Substance Abuse and Mental Health Services Administration awarded the First Responders-Comprehensive

Figure 22. EMS Services Licensed by the State of Alabama

Transport	215
Advanced Life Support	207
Basic Life Support	8
Air	35
Ground	180
Non-Transport	106
Advanced Life Support	106
Total	321

Figure 23. Five Most Common Primary Impression Criteria

Primary Impression Type	Count of Events
General/Other - Weakness	129,465
Cognitive Functions/Awareness - Altered Mental Status	44,301
Pain - Acute Pain, not elsewhere classified	23,919
General/Other - Syncope and Collapse	22,535
Respiratory - Respiratory Distress, Acute	20,455

Addiction and Recovery Act grant for FY2017-2021 to the OEMS. This grant assisted in supplying naloxone to EMS providers licensed in Alabama and gathered research and data on naloxone use statewide. The AOA Project provided training and naloxone assistance to EMS and peer recovery support and referral to opioid overdose victims and their families. The OEMS combined its efforts with the Council on Substance Abuse in Alabama to provide data collection and referral assistance when the patient arrives at the receiving facility. The project was then expanded to include training and educational programs in communities and schools and a marketing campaign was deployed for public awareness. This project provided approximately 20,000 doses of naloxone to licensed EMS providers.

BUREAU OF ENVIRONMENTAL SERVICES

The Bureau of Environmental Services ensures the wellness and safety of Alabamians by regulating food service establishments, milk production, lodging facilities, seafood production, onsite sewage disposal and soil mapping, solid waste disposal, vector control, and indoor air quality and home lead inspections.

Environmental Operations Unit

This unit creates the infrastructure for the bureau by ensuring that the bureau performs proficiently, effectively, and professionally by developing environmental guidelines, policies, and performance standards that measure the efficiency and productivity of the state's environmental programs. The unit also serves as a facilitator for the bureau by providing structured training through workshops, seminars, and conferences for bureau and county personnel. By serving as a "checkpoint" for the bureau, local environmentalists are kept abreast of new and innovative technology, and are provided professional development seminars.

Division of Food, Milk, and Lodging

Food and Lodging Branch

- 43,602 inspections were conducted at food establishments, and 1,910 complaints received from the public concerning food establishments were investigated. Additionally, 178 emergency closure orders were issued for sanitation imminent health hazards and 35 emergency closure orders were issued for unsecured grease trap lids.
- 1,213 lodging inspections were conducted, and 233 complaints received from the public concerning hotels were investigated with 2 emergency closure orders issued.
- 292 body art facility inspections were conducted, and 24 complaints received from the public concerning body art facilities were investigated.

Milk and Food Processing Branch

- 2,184 samples of milk were reviewed and documented on samples collected for laboratory analysis for bacterial contamination and the presence of antibiotic residue.
- 268 single service container samples were reviewed and documented on samples collected for laboratory analysis for bacterial contamination.
- 121 dairy farm inspections and 257 milk processing plant inspections were conducted.
- 99 equipment tests were conducted to evaluate adequate pasteurization for processed milk and frozen dessert plants.
- 37 single service container plants inspections were conducted.
- 109 milk distribution station inspections were conducted.

- 738 certificates of free sale were issued for shipments of milk and frozen dessert products manufactured in Alabama and shipped to overseas markets.

Seafood Branch

- Collected and analyzed 188 water samples in shellfish growing areas of Mobile Bay.
- Conducted 188 inspections of oyster, crab, and other seafood processing plants; 8 samples of oysters or crabmeat were collected for laboratory analysis.

Division of Community Environmental Protection

The main objective of the Soil and Onsite Sewage Branch is to coordinate the onsite sewage program in county health departments. Programs are carried out to minimize the adverse effects of disposal of sewage and high-strength sewage on human health and the environment by establishing and enforcing requirements for the design, permitting, installation, approval, and use of onsite sewage treatment and disposal systems. The branch issued 13,329 permits to install and repair onsite sewage systems; 4,091 were installed, and 10,390 onsite sewage systems were issued an approval for use.

The Solid Waste/Vector Program provides information and education to individuals and communities on the storage and control of solid waste to minimize the threat of a health hazard, nuisance, or harborage for vermin or vectors. New Solid Waste Collection and Transportation Rules (420-3-5) were implemented on November 14, 2021.

New Septage Management Rules (420-3-6) which now include septic tank pumpers were implemented on February 14, 2021. In FY2021, 474 pumper stickers were issued to septic tank pumper vehicles. There are currently 12 land application sites permitted statewide. Thirteen land application sites were inspected in FY2021.

Of the 32 septic tank manufacturers permitted in Alabama, 65 manufacturer inspections were conducted in FY2021.

Soil Branch

The Soil Branch provides assistance to local environmentalists concerning problem soils and sites for onsite sewage disposal systems. Three soil scientists serve 66 counties.

Activities for 2021:

- Total onsite disposal sites evaluated (small flow) - 593
- Total onsite disposal sites evaluated (large flow) - 20
- Lowndes County special project sites evaluated - 12

- Septage disposal sites (land farms) evaluated – 0
- Sites with water wells identified – 21
- Training activities conducted – 6
- Number of participants trained – 54

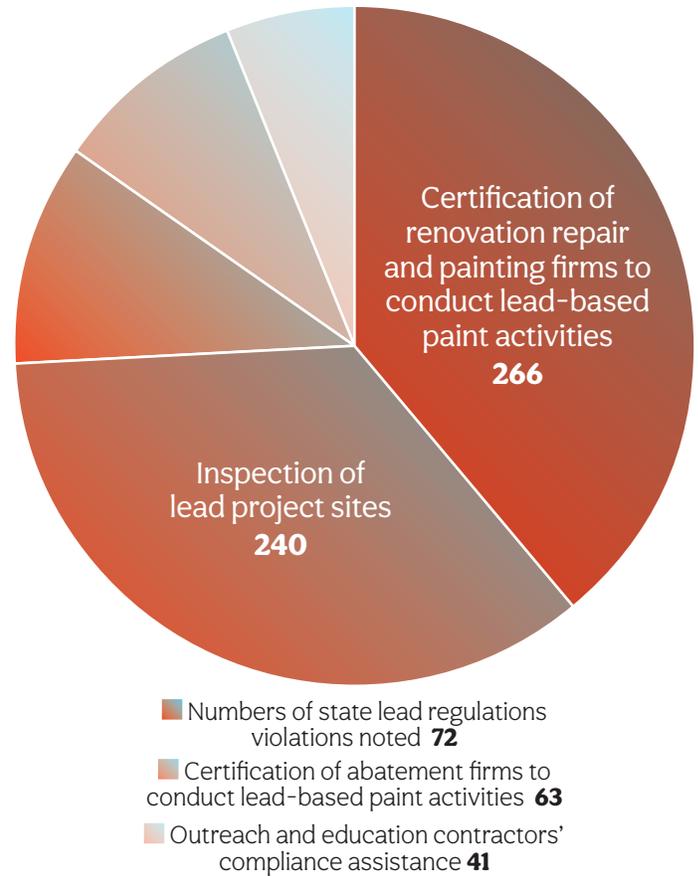
Indoor Air Quality/Lead Asbestos Hazard Emergency Response Act (AHERA) Branch

The branch provides information and printed materials on issues related to indoor air quality, molds, lead-based paint, and other lead hazards. The primary focus of the branch is to enforce the state regulations promulgated under the Alabama Lead Reduction Act of 1997. These rules require individuals and firms engaged in lead identification and risk assessment and lead-based paint removal of pre-1978 housing and child-occupied facilities to be trained and certified to perform according to established safe work practice standards. The branch administers the AHERA Program and its regulations that require public school districts and non-profit schools, including charter schools and schools affiliated with religious institutions, to:

- Inspect their schools for asbestos-containing building material.
- Prepare management plans and take action to prevent or reduce asbestos hazards.

Branch personnel also provide support for the Alabama Childhood Lead Poisoning Prevention Program. The branch is the EPA-designated state indoor air contact providing advisory services for the state and those who request it by providing indoor air quality, molds, and asbestos information and printed materials. It is also the EPA-designated agency for the AHERA requiring local education agencies to inspect their school buildings for asbestos-containing building material, prepare asbestos management plans, and perform asbestos response actions to prevent or reduce asbestos hazards.

Figure 24. Lead Contractor Certification Program Activities



BUREAU OF FAMILY HEALTH SERVICES

Cancer Prevention and Control

Alabama Breast and Cervical Cancer Early Detection Program (ABCCEDP)

For 25 years, the ABCCEDP has provided free breast and cervical cancer screening and diagnostic services for women in Alabama who have no insurance and are at or below 250 percent of the poverty level. Statewide funding for the program is provided by the CDC, the state of Alabama, and the Joy to Life Foundation. In addition, the Joy to Life Foundation funds services for underserved women who are not eligible for ABCCEDP. The foundation's funding significantly enhances breast cancer screening efforts. Breast cancer screening includes free clinical breast exams and mammograms. Cervical cancer screening includes a free pelvic exam, a Pap smear, and an HPV test. If needed, diagnostic services such as diagnostic mammograms, ultrasounds, surgical consultations, biopsies, and colposcopies are provided. If a patient is diagnosed with breast cancer or cervical pre-invasive or invasive cancer, she may be eligible to receive treatment through the Alabama Medicaid Agency. In the last 10 years, since 2011, a total of 1,181 breast cancers and 2,239 cervical pre-invasive and invasive cancers have been diagnosed through ABCCEDP.

WISEWOMAN (Well Integrated Screening and Evaluation for Women Across the Nation) Program

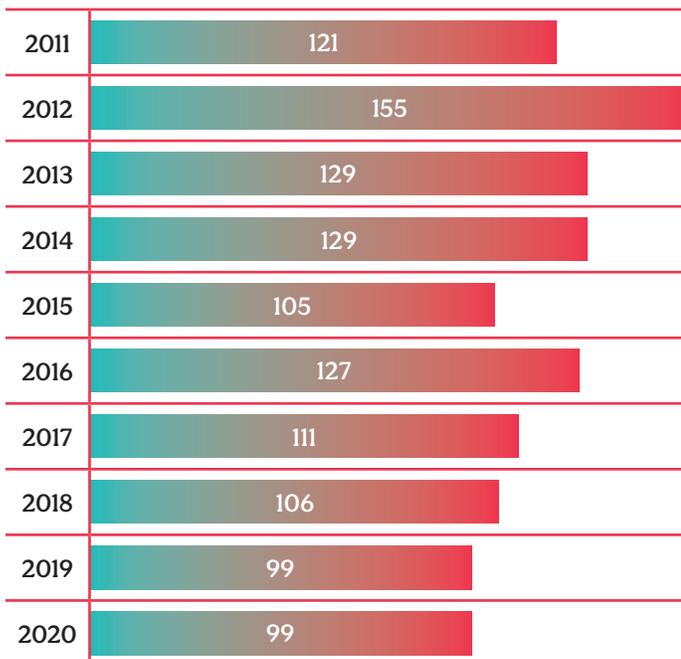
WISEWOMAN strives to help women in ABCCEDP understand their risk for cardiovascular disease. The program provides

services to improve hypertension and promote healthy lifestyles. Each participant is screened for hypertension, hypercholesterolemia, diabetes, smoking, and body mass index. Since the program began in 2013, 6,116 women have participated across seven counties. Ninety-eight percent of the participants seen have received health coaching, 900 participants received medication support, 1,101 participants attended at least one support group session, 610 have received nutritional sustenance, and 2,514 nutritional counseling sessions were completed by a registered dietitian. Participants are given access to resources needed to improve their cardiovascular health such as risk reduction counseling, health coaching, nutrition visits, and support groups. Program efforts have led to improvements in blood pressure control through increased awareness, knowledge, and skills to improve nutrition, physical activity, and reaching and maintaining a healthy weight. Dietitian and medical follow-up visits and health coaching sessions were provided remotely during the pandemic.

Alabama Comprehensive Cancer Program

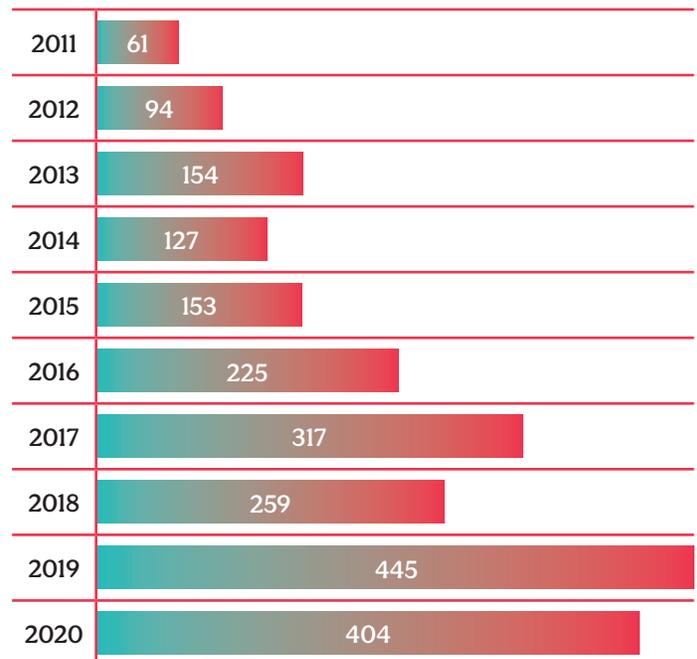
The Alabama Comprehensive Cancer Program facilitates the statewide Alabama Comprehensive Cancer Control Coalition. The coalition is a statewide group of cancer-related organizations and advocates that are responsible for assessing the burden of cancer, determining priorities for cancer prevention and control, and implementing the 2016-2021 Alabama Cancer Control Plan. The vision is to eliminate the burden of cancer in Alabama. The current 5-year

Figure 25. ABCCEDP Diagnosed Breast Cancers by Year*



*2020 is the most recent year for which statistics are available.

Figure 26. ABCCEDP Diagnosed Preinvasive and Invasive Cervical Cancers by Year*



*2020 is the most recent year for which statistics are available.

goals are to expand partnerships; decrease the number of Alabamians affected by tobacco; increase the number of Alabamians receiving the HPV vaccination; reduce Alabamians' cancer risk by decreasing their exposure to ultraviolet light; strengthen survivorship, hospice, and palliative care; and increase Alabamians' access to clinical trials. Goals also include identifying and improving the health equity of disparate populations in Alabama affected by cancer. Healthy lifestyle choices such as a proper diet, regular exercise, and participation in checkups and screenings are vital. The program and coalition seek community members and organizations who are interested in setting the state's agenda for cancer control. The 2022-2026 Alabama Cancer Control Plan will be released in July 2022.

Alabama Statewide Cancer Registry

The Alabama Statewide Cancer Registry, a population-based cancer registry, is an information system designed for the collection, management, and analysis of cancer data. The purpose of the cancer registry is to collect accurate and up-to-date information about cancer in Alabama. The cancer data is then disseminated to public health and medical professionals, community groups, volunteer agencies, and others who are interested in cancer prevention and control. Cancer is the second leading cause of death in Alabama, exceeded only by heart disease. Approximately 1 in 3 people will be diagnosed with cancer at some point in his or her lifetime. Effective prevention measures exist to substantially reduce the number of new cancer cases each year and prevent cancer deaths. Cancer surveillance serves as the foundation for a comprehensive strategy to reduce illness and death from cancer and enables health professionals to better understand the cancer burden. The registry plays a significant role in disseminating data to aid efforts to reduce the burden of cancer in Alabama.

Colorectal and Prostate Cancer Prevention Program

The division oversees legislative funds to provide colorectal and prostate cancer screening for underserved men and women. Over the past year, colorectal cancer funding was used to screen 99 persons. The prostate cancer funding was used to screen 365 persons.

Child and Adolescent Health

The Child and Adolescent Health Division is comprised of the Adolescent Pregnancy Prevention Branch (APPB), the Social Work Branch, and the Child Health Branch which includes the Alabama Childhood Lead Poisoning Prevention Program (ACLPPP) and the Healthy Child Care Alabama (HCCA) Program. The COVID-19 pandemic continued to provide challenges for program operations due to restrictions that contributed to limited access to the targeted populations served.

The APPB works to reduce the incidence of unplanned pregnancies and sexually transmitted infections among teens in Alabama. The branch utilizes federal grants awarded to ADPH, as well as partnerships with a number of local and state organizations, to promote healthy decisions among young people. The branch works at the community level to provide opportunities and resources that promote the overall health and well-being of youth. This approach includes abstinence education, responsibility education, and overall positive youth development.

Figure 27. Alabama Cancer Incidence Rates by Site and Sex, 2010-2019 Combined*

Cancer Site	MALE		FEMALE	
	Rate	Count	Rate	Count
All Sites	525.6	140,263	401.9	124,572
Bladder	32.5	8,235	7.6	2,494
Brain and Other Nervous System	7.6	1,942	5.5	1,594
Breast	1.4	371	121.6	37,263
Cervix Uteri	-	-	9.1	2,321
Colon and Rectum	50.4	13,160	37.1	11,701
Esophagus	8.0	2,211	1.7	553
Hodgkin Lymphoma	2.6	622	2.1	520
Kidney and Renal Pelvis	24.1	6,401	12.5	3,918
Larynx	7.6	2,132	1.6	507
Leukemia	16.0	3,981	9.9	2,994
Liver and Intrahepatic Bile Duct	11.8	3,361	4.2	1,365
Lung and Bronchus	85.8	23,005	50.8	16,887
Melanoma of the Skin	28.2	7,178	17.1	4,941
Myeloma	8.5	2,236	6.0	1,952
Non-Hodgkin Lymphoma	19.6	5,000	13.4	4,230
Oral Cavity and Pharynx	19.8	5,407	7.1	2,218
Ovary	-	-	11.2	3,449
Pancreas	15.0	3,996	11.3	3,703
Prostate	127.2	36,191	-	-
Stomach	8.8	2,297	5.0	1,580
Testis	4.4	975	-	-
Thyroid	4.8	1,228	13.8	3,674
Uterine (Corpus and Uterus, not otherwise specified)	-	-	19.8	6,345

Rates are per 100,000 and age-adjusted to the 2000 U.S. (19 age groups) standard. Rates and counts are for malignant cases only with the exception of urinary bladder and groups that contain urinary bladder. *2019 is the most recent year for which statistics are available.

APPB contains the Alabama Sexual Risk Avoidance Education Program which provides abstinence education to youth in school and community settings through grants to youth-serving organizations. APPB also contains the Alabama Personal Responsibility Education Program, which provides education regarding abstinence and contraception to youth age 10-19 in community settings through grants to youth-serving organizations as well as high schools. Youth received evidence-based, medically accurate programs within several counties in the East Central, Southwestern, and West Central districts.

The Social Work Branch continues to provide care coordination services for multiple programs throughout the state. The Early Periodic Screening, Diagnostic, and Treatment (EPSDT) Care Coordination Program provides care coordination services for newborn hearing, newborn screening, and elevated lead levels. The unit completed 2,872 referrals in this program including 494 elevated lead referrals, 37 newborn screening referrals, and 2,341 newborn hearing referrals. The unit continues

to collaborate on a grant with the Department of Human Resources to ensure children enrolled in Early Head Start attend medical and dental appointments and assist in the recruitment of children with special needs into the Early Head Start Program. The Community Health Advisor Program, funded through Title X, provides care coordination services that focus on family planning services, women's health-related conditions, and promotion of the HPV vaccine. The program added 7 counties during FY2021, bringing the total to 20 underserved counties. The ALL Babies Program, through the CHIP Program, provides medical coverage and care coordination services to uninsured pregnant women who do not qualify for Medicaid or ALL Kids due to age, citizenship, or income in Montgomery, Macon, and Russell counties. During FY2021, 292 women received care coordination services.

The ACLPPP is a collaborative effort of the ADPH bureaus of Family Health Services and Environmental Services, CDC, and the Alabama Medicaid Agency. The program provides case investigation, case management services, and environmental testing to help identify and alleviate sources of lead exposure for lead-affected families. In addition, the program provides public education and outreach to spread awareness about lead poisoning and increase the number of children screened for lead exposure. In 2021, there were 37,709 children reported as tested, of whom 660 were reported as having elevated blood levels of concern, defined as levels greater than or equal to 5 micrograms per deciliter.

The HCCA Program provides health and safety training and technical assistance to child care providers throughout the state. In an effort to prevent injury and promote health, 14 nurse consultants work to provide first aid, safety, CPR, infection control, and poison prevention training. During FY2021, programming was provided through 7,346 classes to more than 25,000 provider staff.

Oral Health Office (OHO)

The year 2021 marked the third year in the 5-year coverage, 2018-2023, of Alabama's first State Oral Health Plan (SOHP), "Your Mouth/Your Health: The Connection of Oral Health to Overall Health." While several objectives have been addressed and implemented since the plan's inception, the office initiated its focus on the Basic Screening Survey (BSS), a 5-year statewide needs assessment, for kindergarten and third grade students. The survey is a needs assessment that stratifies information obtained regarding incidence of treated/untreated decay and presence of sealants over a wide range of categories such as age, race/ethnicity, gender, and participation in free/reduced lunch programs. Height and weight are also collected to assess body mass index of the sample selection. The survey is recommended at 5- to 7-year intervals to identify disparities throughout the state's child population. A total of 60 schools were randomly selected by the Association of State and Territorial Dental Directors (ASTDD) using criteria systematically designed for state-by-state comparison on a national scale. Utilizing the 2011-2012 survey's analysis from the SOHP as a benchmark, adjustments to the original S.M.A.R.T. (Specific, Measurable, Achievable, Realistic, Timed) objectives can be made to address the needs of the state's most

vulnerable population. As of the end of FY2021, 3,373 students from 31 schools were screened. The screening portion of the BSS is on track to be completed by April 2022 with data analysis for publication by fall 2022.

Despite the vacancy of the fluoridation coordinator staff member for much of the year, great strides were made in Alabama's Community Water Fluoridation (CWF) efforts. Through a partnership with the City of Troy, the OHO successfully hosted its first "Oral Health & Community Water Fluoridation Virtual Conference." Educational opportunities from national speakers including the fluoridation engineer from the CDC, as well as the president of the American Fluoridation Society, attracted a wide variety of attendees. The conference provided four ADEM-approved continuing education hours for Alabama water plant operators. A total of 187 certificates were provided to participants. In addition to these operators, state dental directors, fluoridation coordinators from other states, college professors, and other ADPH staff attended the conference. A second, in-person conference was held as well. It was co-hosted by the City of Troy and the OHO. Eighty operators were awarded continuing education certificates for 7 ADEM-approved hours. Another accolade for fluoridation efforts in Alabama is evidenced by the 11 percent increase in the number of CDC fluoridation quality awards (123 versus 109) from the previous year. Water plants that uniformly maintain an optimal fluoride level of 0.7 ppm for the preceding 12-month reporting period receive awards. The OHO provides fluoridation grants for water plants submitting requests for proposals to initiate CWF or to purchase new or replacement fluoridation equipment. The grants will impact approximately 124,000 residents in those communities in FY2021.

The fourth annual "Share Your Smile with Alabama" campaign featuring two third graders, held during National Children's Dental Health Month, promoted the importance of preventive dental visits for children and CWF. The campaign for 2021 also emphasized the 76th Anniversary of CWF. The winners were announced during a statewide news broadcast and promoted on billboards adjacent to the winners' respective schools.

Collaboration between the OHO and USA Mitchell Cancer Institute continued with the "WATCHYOURMOUTH" campaign designed to promote education about the FDA-approved vaccine for prevention of HPV-related oropharyngeal and other oral cancers. The campaign garnered the attention of representatives from the sole manufacturer of the 9-valent HPV vaccine in the U.S. Promotion by the representatives evolved to presentations given to local, state, and national offices and organizations, highlighting the strategies set forth for the campaign. Presentations have included audiences such as Georgetown University; School-Based Health Alliance; New York City Department of Health; VAX2STOPCANCER; Merck; Florida Chapter, American Academy of Pediatrics; Tutwiler Prison; and the Association of State and Territorial Dental Directors. Alabama is one of the first states to include the promotion of education surrounding HPV-related oral and oropharyngeal cancers, combined with the promotion of the associated HPV vaccine, into a functional and effective medical-dental integration as a strategy measure in its Maternal and Child Health Title V Grant Performance Measures.

The OHO provided funding to the Tuscaloosa County Health Department for the purchase of radiographic equipment for its dental facility. The new equipment offers state-of-the-art diagnostic tools to treat patients in its clinic. The OHO was also involved in the initiation of a satellite dental facility consisting of two treatment operatories in the Greene County Health Department. This addition is of great significance since there is no private sector dentist in Greene County.

Another milestone for the OHO was the certification of its treatment coordinator as a Community Dental Health Coordinator, abbreviated as CDHC, through Catawaba Valley Community College. This credential will be crucial in the future to allow certain aspects of teledentistry utilizing ADPH as the proposed platform. Comparable to a social worker, but for dentistry, professionals with the Registered Dental Hygienist/CDHC designation help address issues of access to oral health care.

ASTDD previously recognized a partnership between the OHO and HandsOn River Region, the organization which oversees the Pay It Forward Program, as a best practice. The program employs a value-based system in which participants complete volunteer hours in exchange for dental treatment from volunteer dentists. Over 200 organizations are enrolled in the program which was originally intended for expectant mothers with no insurance, but has expanded to include expectant fathers and chronically unemployed or difficult-to-place individuals.

Perinatal Health

MCH Epidemiology

The mission of the MCH Epidemiology Branch is to utilize research and analysis to assess needs to impact public health policy that will assure the healthiest conditions for the state's MCH populations. In order to answer a request or provide context for a statistic or topic, staff may sometimes perform literary searches and statistical testing, and identify and glean information from key subject matter experts. The branch administers the MCH Title V Block Grant Annual Report and Application, the State Systems Development Initiative Project, and the Pregnancy Risk Assessment Monitoring System (PRAMS) Project. PRAMS is a joint research project between the department and CDC. On May 1, 2016, the Bureau of Family Health Services assumed administration of the PRAMS grant from the Center for Health Statistics, which began collecting PRAMS data in 1993. The purpose of this program is to determine why some babies are born healthy and others are not. To do this, a questionnaire asks new mothers about their behaviors and experiences around the time of their pregnancy. For the year 2021, 1,171 mothers were randomly selected from the state birth certificate registry and sampled for the PRAMS Project. Responses to the survey are used to implement new projects or modify existing ones to help improve the health of mothers and babies in Alabama.

The branch also provides support to the following programs within the bureau: the Alabama State Perinatal Program, which includes the Fetal and Infant Mortality Review Program and the Maternal Mortality Review Program; the Family Planning Program; the Childhood Lead Program; the Newborn Screening and Newborn Hearing Screening programs; and the Alabama

Birth Defects Surveillance Program, which is currently under development. The branch also provides support to the State of Alabama Infant Mortality Reduction Plan Workgroup as well as the Pregnancy Outcomes Team of the department's Strategic Planning Team.

Newborn Screening (NBS) Program

The Alabama NBS is a comprehensive and coordinated system encompassing education, screening, follow-up, diagnosis, evaluation, and management of certain genetic disorders. In 2021, Alabama screened for 31 recommended disorders including the bloodspot screening, newborn hearing screening, and pulse oximetry screening to detect critical congenital heart disease. The Alabama BCL provides blood analysis of NBS specimens and manages a web-based system, Secure Remote Viewer, which allows medical providers to access screening results online.

There were significant challenges in 2021 for the program. The emergency response to the COVID-19 pandemic continued to impact the function of the program. Program staff assisted in monitoring temperatures of the laboratory staff for several months as well as providing testing for the lab staff. The pandemic continued to affect timely follow-up services received by families such as outpatient diagnostic hearing evaluations. NBS allows treatment to be initiated within the first few weeks of life, preventing some of the complications associated with disorders. Early diagnosis may reduce morbidity, death, intellectual disability, and other developmental disabilities. The program works in partnership with pediatric subspecialists throughout the state to ensure all babies identified with presumptive positive results receive appropriate follow-up. The program's subspecialists participate in provider education webinars and on the Alabama Newborn Screening Advisory Committee. Additionally, six community-based sickle cell organizations provide counseling services and follow-up for children identified with sickle cell disease or trait.

The Alabama Early Hearing Detection and Intervention Program, Alabama's Listening, ensures that all infants receive a hearing screening prior to hospital discharge, and that they are referred for further testing and intervention if they do not pass the hearing screen. The Alabama's Listening Program is federally funded. The goal of the program is to follow the Joint Committee on Infant Hearing Guidelines, which is screening by 1 month of age, diagnostic hearing evaluation by 3 months of age, and referral to early intervention by 6 months of age to ensure optimal language acquisition, academic achievement, and social and emotional development. The Alabama's Listening Program continues to undergo many challenges with following these guidelines as diagnostic facilities return to normal business hours and scheduling families for follow-up. For instance, babies born in 2020 are only now being diagnosed for hearing loss, increasing the number reported in 2020 from 53 to 109. During 2021, the Alabama Newborn Screening Program received approximately 2,046 lab referrals and identified 206 infants with a newborn screening condition. Figure 28 indicates the number of infants identified for NBS disorders.

State Perinatal Program

The purpose of the State Perinatal Program is to identify and recommend strategies that will effectively decrease maternal

Figure 28. NBS Screening Disorders based on Date of Birth for Calendar Year 2021

2021 NBS Core Disorders	Number of Presumptive Positives	Number of Infants Identified	Number Referred for Intervention/Specialty Care
3-Hydroxy-3-methylglutaric aciduria	0	0	0
3MCC	2	1	1
Argininosuccinic Aciduria	0	0	0
Beta Ketothiolase Deficiency	0	0	0
Biotinidase Deficiency	1	1	1
Carnitine Uptake Defect (CUD)	30	1	1
Citrullinemia Type 1	33	0	0
Classic Galactosemia	23	1	1
Classical Phenylketonuria (PKU)	23	4	4
Congenital Adrenal Hyperplasia	27	0	0
Congenital Hypothyroidism	123	56	56
Critical Congenital Heart Disease	3	0	0
Cystic Fibrosis	202	7	7
Glutaric Acidemia Type 1	3	0	0
Hearing Loss	1,260	68	68**
Holocarboxylase Synthase Deficiency	0	0	0
Homocystinuria	57	0	0
Isovaleric Acidemia	7	0	0
LCHAD (Long-chain)	0	0	0
Maple Syrup Urine Disease	13	0	0
MCADD (Medium-chain)	18	6	6
Methylmalonic Acidemia (Cbl A, B)* Methylmalonic Acidemia Mutase* Propionic Acidemia*	19	1	1
Multiple Carboxylase Deficiency	0	0	0
SCID (Testing began 10/1/2018)	49	0	0
S Beta Thalassemia	3	3	3
SC Disease	17	17	17
SS Disease	40	40	40
Trifunctional Protein Deficiency	0	0	0
Tyrosinemia Type I	87	0	0
VLCAD (Very Long Chain)	6	0	0
Totals	2,046	206	206

*Same analyte used to test. **Data continues to be reported

and infant morbidity and mortality. Program activities include maternal, fetal, and infant mortality reviews; community outreach and education to reduce risk factors associated with maternal, fetal, and infant deaths; support and promotion of breastfeeding and safe sleep practices; promotion of the Alabama Regionalization System Guidelines; and continuing the initiatives of the State of Alabama Infant Mortality Reduction Plan. In 2021, despite challenges associated with the COVID-19 pandemic, all activities of the program remained active. Staff members continued their daily responsibilities reviewing and abstracting medical records as well as holding case review team meetings, community action team activities and meetings, and Maternal Mortality Review Committee

meetings. The Maternal Mortality Review Program began the process of reviewing all maternal COVID-19 deaths in real time so that timely review and recommendations could be made. Perinatal Program staff began work on creating a Fetal and Infant Mortality Review Report which will outline fetal and infant mortality reporting and efforts accomplished by the Fetal and Infant Mortality Review Program since 2010. Alabama also began work on its second Maternal Mortality Review Report which outlines imperative findings, including causes of death, key contributing factors, and recommendations for preventative strategies based on the 2016 and 2017 maternal deaths reviewed by the committee. Both reports are due to be released in spring 2022.

Women's Health

The Women's Health Family Planning Program reduces unintended pregnancies and assists clients to plan and space the time between pregnancies by providing high quality, comprehensive family planning services, funded in part by federal Title X family planning services grants. Family planning services include testing for pregnancy and sexually transmitted diseases, breast and cervical cancer screening, reproductive and contraceptive counseling, and access to a broad range of contraceptive methods, including oral and injectable contraception, intrauterine devices, contraceptive implants, emergency contraception, and referrals for male and female sterilization. All services are confidential, and most clients qualify to receive services at reduced or no charge, based upon income. Title X family planning services are available in 81 sites across Alabama. ADPH family planning clinics are located in 64 of Alabama's 67 counties; family planning services are also available at public health clinics in Jefferson County and Mobile County.

Despite ongoing COVID-19 precautions in 2021, the services and initiatives of the Family Planning Program continued. Telehealth visits assured uninterrupted client access to essential, time-sensitive family planning and related preventive health services, and restrictions around in-person services eased over time. In FY2021, ADPH providers served just under 35,000 family planning clients, completing nearly 75,000 in-person and telehealth visits; Title X sub recipients, Jefferson County Department of Health and Mobile County Health Department, provided family planning services to an additional 11,540 clients.

During FY2021, the Family Planning Program continued tele-colposcopy services, improving access to care, and increasing patient compliance with abnormal cervical screening follow-up. Nurse practitioner senior colposcopy training continues to be on track for completion in 2022. Bridging the gap in patient care services during a national nursing shortage, ADPH hired 12 nurse practitioners statewide. Counties where colposcopy clinics are held are as follows: East Central District, Montgomery County; Northeastern District, Calhoun and Shelby counties; Northern District, Cullman County; Southeastern District, Butler County; Southwestern District, Dallas County; West Central District, Bibb County.

Figure 29. Total Colposcopies Performed by Year

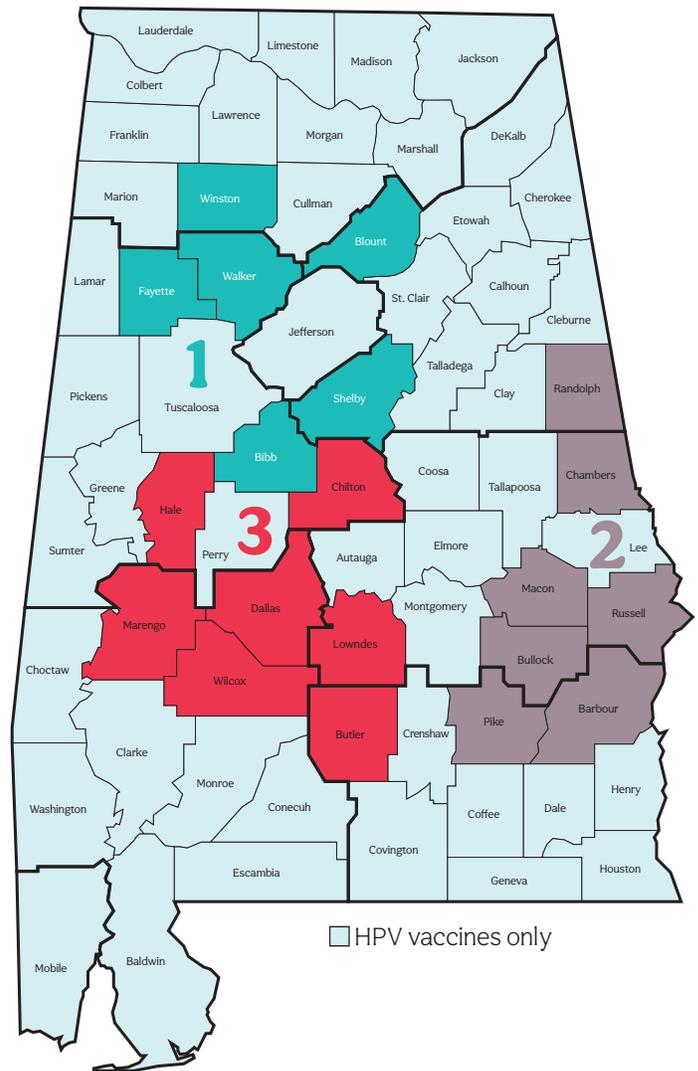
Year	Number of Colposcopies	Referral for further treatment
2019	264	48 (18%)
2020**	251	43 (17%)
2021**	216	35 (16%)

**Decrease in number of clinics offered due to COVID-19 for 2020 and 2021

The Family Planning Program's Community Health Advisor (CHA) initiative, which began in 2020, expanded in FY2021 from 13 to 20 counties (see map). Through community-based outreach and education and collaborative relationships with community organizations, Family Planning public health educators emphasize the CHA initiative's focal issues – reducing cervical cancer morbidity and mortality through regular cervical cancer screening and preventing cervical cancer with HPV vaccine. The HPV vaccine, Gardasil[®]9, prevents most cervical

cancers, as well as six HPV-related oropharyngeal cancers, and is available in all ADPH family planning clinics. During FY2021, the program provided, free of charge, 6,877 doses of HPV vaccine to 5,869 clients. The public health educators also promote community awareness of the broad range of family planning services and contraceptive methods that are available in local ADPH clinics. Additionally, CHA initiative social workers provide individualized, risk-based care coordination services, such as education and follow-up to facilitate clients' completion of provider referrals for higher-level medical care and/or completion of the HPV vaccination series. In 2021, the three social workers provided care coordination services to 1,527 family planning clients, completing 6,875 encounters.

Figure 30. Family Planning Community Health Advisor Program Counties



Office of Women's Health (OWH)

OWH provides statewide leadership and coordination to promote the health of women and girls through policy, advocacy, education, and partnership. The OWH achieves its mission and vision by educating health professionals, and motivating behavior change in consumers through the dissemination of health information. Two major initiatives in 2021 from the OWH included continued outreach for the prevention and increased awareness of neonatal abstinence syndrome (NAS) by hosting/

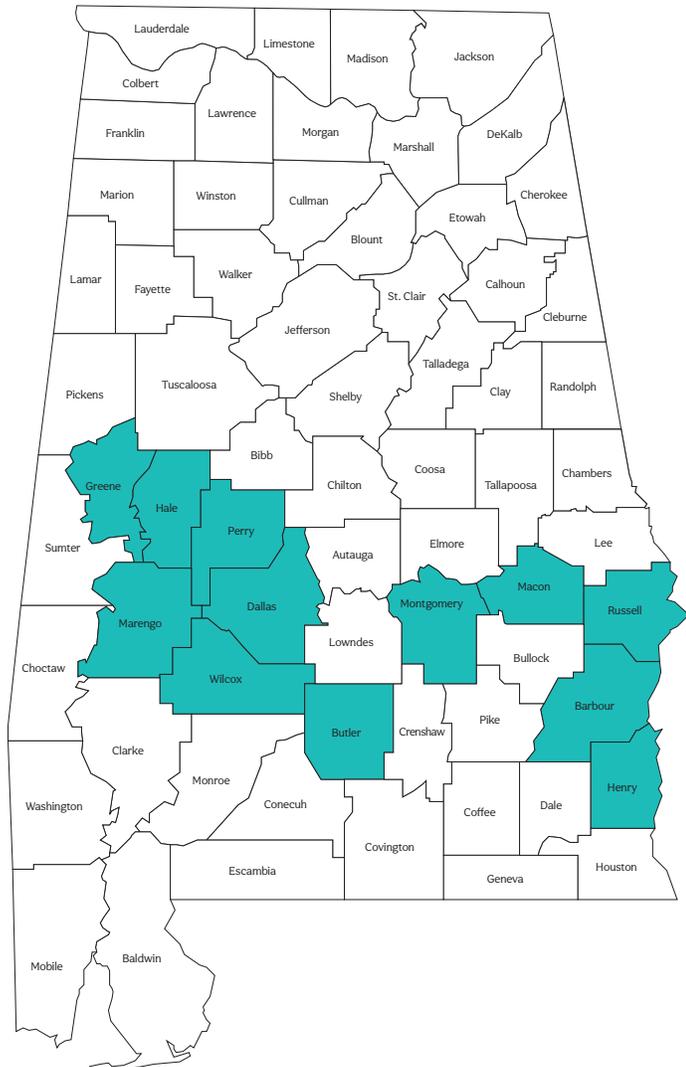
coordinating the Alabama Opioid Misuse in Women/NAS Task Force meetings, and the expansion of the department’s Well Woman Program into additional counties.

The Well Woman Program promotes healthy living, prevention, and early detection of disease to assist in increasing longevity and quality of life for women ages 15 to 55 in Alabama. The program began as a pilot program in FY2017 with 3 counties and has been fortunate to expand to 12 counties in Alabama due to federal Title V grant funding and funds from the Governor’s Initiative to Reduce Infant Mortality Rates in Alabama (see map). The program enhances access to preventative screenings for cardiovascular disease, wellness checks, and vision and oral screenings; and offers free services to address issues such as obesity, hypertension, high cholesterol, and diabetes. All program components are related to the delivery of screening, diagnosis, treatment of hypertension, and delivery of support to patients receiving Well Woman services. Patients are given the opportunity to participate in behavioral change programs addressing chronic diseases, food choices and portion control, physical activity, and smoking cessation. The Well Woman Program utilizes the New Leaf curriculum, which is a nationally recognized science-based intervention tool that emphasizes practical strategies for making changes in dietary intake and physical behaviors. The program accepts self-referrals,

referrals from community partners, local physicians, and other programs within ADPH such as the family planning and STD clinics for eligible women. The Well Woman Program has been included as one of several strategies of the Governor’s initiative.

Telehealth and telemedicine services have been beneficial in the continuation of Well Woman services during the COVID-19 pandemic. Telehealth/telemedicine is incorporated into the program, which allows for continuation of services, such as health and nutrition coaching sessions, risk assessment and counseling, as well as other educational opportunities. In FY2021, the program began a trial pilot clinical team in the West Central District (Hale, Greene, and Perry counties) to broaden services to a population of women in a medically underserved region of Alabama known as the “Black Belt.” The pilot team travels to each county one day of the week to offer services to eligible women. The increased number of Well Woman counties offering services allows for growth and the provision of more information for the continuation of care regarding preconception and interconception care, as well as promoting healthy lifestyle behaviors to women in their districts. The map at right illustrates the current counties within Alabama with a Well Woman Program.

Figure 31. Well Woman Programs in Alabama



Maternal and Child Health (MCH)

The MCH Program coordinates federal MCH Title V Block Grant activities. MCH Title V Block Grant services to Children and Youth with Special Health Care Needs are administered through a contract with the Alabama Department of Rehabilitation Services, Children’s Rehabilitation Service. The Alabama MCH Program staff continue to change the different ways in which the grant is administered to better align with the objectives and goals of the federal block grant transformation. The federally lead MCH 3.0 Transformation requires states to select national performance measures across six population health domains. Additionally, states must select evidence-based or informed strategy measures (ESM) for each of the selected national performance measures. Bureau staff work with community, state, and national partners to identify and implement ESMs that improve the health of Alabama’s MCH population. An update to the MCH priority needs for 2021-2025 and the evidence-informed strategies to address those needs is being completed.

In addition to the ESM-focused activities, MCH Program staff also engage in other multi-partner and multi-sector projects. On September 9, 2021, the program, in collaboration with Alabama’s Healthy Start grantees, hosted a virtual Infant Mortality Awareness Summit. The 2021 theme was “Strengthening Communities: Tools to Promote Better Birth Outcomes.” Speakers provided attendees with information on maternal, fetal, and infant mortality review in Alabama and alternative models of prenatal care such as services provided by midwives and doulas. The audience was also educated on the methods in which community-based organizations can improve birth outcomes by supporting mothers, fathers, and infants.

Maternal health, which is the cornerstone for overall health and well-being of children, families, and communities, is a key focus for MCH Program staff. Additionally, maternal mortality and the ongoing evaluation of Alabama’s maternal mortality rate has become a targeted measure for the state through the work of the Maternal Mortality Review Committee (MMRC). The MMRC is charged with identifying specific causes of maternal mortality; identifying these causes is key to creating change. The committee reviews every

death that occurs during pregnancy, childbirth, and within the first year after delivery to help identify contributing factors.

In 2020, Alabama had the third highest maternal mortality rate in the nation of 36.4 per 100,000 live births. The Alabama MMRC 2021 report indicates members reviewed data from 2016 and 2017 for women ages 15-56 years who were identified as maternal deaths. Eighty cases were reviewed by the committee. The leading causes of death in the 80 cases were determined to be cardiovascular-related events, substance overdose/toxicity, and infections. The table below is taken from a working copy of the MMRC 2021 report and shows the distribution of maternal mortality cases by preventability. Of the 80 cases reviewed, more than half (56.3 percent) were deemed as preventable. As the committee continues to review the maternal deaths in Alabama, it is making recommendations and developing strategies to help save lives and reduce the maternal mortality rate in Alabama.

Figure 32. Maternal Mortality Cases Reviewed, 2016-2017

Death Preventability	Number = 80	Percentage
Preventable	45	56.3%
Not Preventable	33	41.3%
Unable to Determine	2	2.5%

Women, Infants, and Children Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves women who are pregnant, recently had a baby, or are breastfeeding; infants; and children up to the age of 5 years. To qualify to receive WIC benefits, the applicant must meet income guidelines, and have at least one nutrition risk documented. Benefits provided by the WIC Program include quality nutrition education and services, breastfeeding promotion and support, referrals to maternal and child healthcare services and other assistance agencies, and supplemental foods prescribed as a monthly food package. Supplemental foods include fresh fruits and vegetables, whole grains, dairy, protein sources, juice, infant foods and formula as well as other specialized formulas ordered by physicians.

During the summer of 2021, Alabama WIC launched a temporary increase of cash value benefits enabling qualified WIC participants to purchase additional fresh fruits and vegetables during the produce season. Alabama WIC issues electronic food instruments, with each family receiving an eWIC card to purchase WIC-approved foods. To improve the shopping experience and promote social distancing, WIC participants are now able to utilize self-checkout lanes at certain authorized vendors (stores).

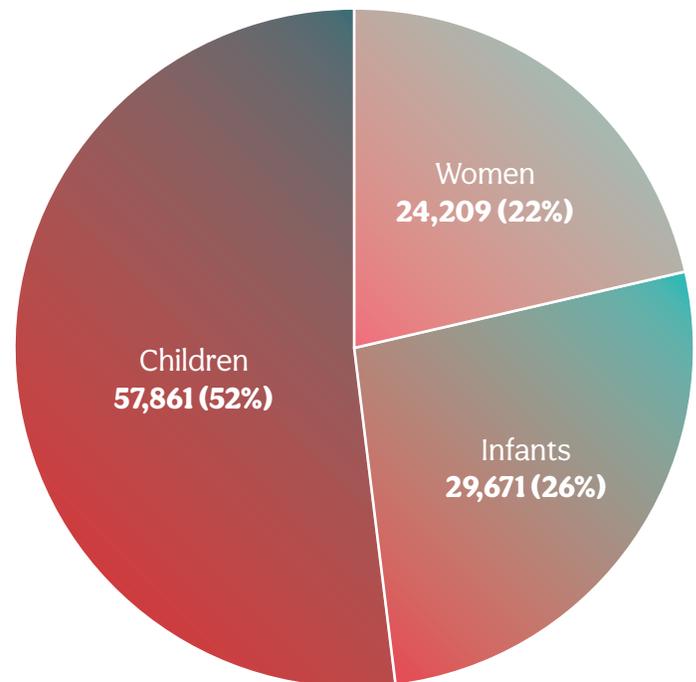
In response to COVID-19, Alabama WIC implemented several federally authorized WIC waivers to ensure participant safety

and continuation of services. Current social distancing waivers include remote benefits issuance, physical presence, and separation of duties, all of which enable WIC benefits to be issued remotely. For certain participant groups, benefits are automatically issued each month without action from the participant. Participants in need of regular nutritional assessments are able to receive benefits via a remote telephone appointment. In addition to social distancing waivers, Alabama's WIC Program implemented a food package substitution waiver to ensure adequate supplies of whole wheat/whole grain bread remain available to participants during the pandemic. These waivers enabled Alabama's WIC Program to serve just under 112,000 average monthly participants during 2021.

Figure 33. WIC Redemptions by District, FY2021

Districts	FY2021 Total Redemptions
East Central	\$11,669,971.97
Jefferson	\$8,628,328.68
Mobile	\$7,869,433.26
Northern	\$15,692,875.82
Northeastern	\$11,273,740.32
Southeastern	\$7,803,488.91
Southwestern	\$7,036,635.08
West Central	\$7,165,173.58
Total	\$77,139,647.62

Figure 34. Average WIC Participation, FY2021



OFFICE OF FIELD OPERATIONS

Clinical Management and Practice

Clerical

Public Health clerical staff provide professional assistance in the daily operations of county health departments and in the daily functions of the districts and central office. Staff serve in a variety of roles including front desk receptionist, intake clerk, home health clerk, and office manager. Each administrative support staff member is vital to the agency's ability to meet the needs of the citizens of Alabama.

Electronic Health Record (EHR)

The EHR is continuing to implement enhancements to improve patient care at county health departments. With Microsoft ending security updates for its Internet Explorer platform, CureMD has successfully migrated the ADPH EHR to Google Chrome. This will allow users to directly access help functions and will allow all security updates to run and install as needed. Self-check-in kiosks are being installed at all county health department locations to assist with check-in procedures for patients. Monthly in-person training for CureMD is available on-site at the Training Center in Prattville. EHR continues to work with federal and state programs at ADPH to ensure all reporting needs are met and that all required data is captured in patient encounters.

Nursing

The mission of Public Health Nursing is to assure conditions in which individuals, families, and communities can be healthy utilizing the unique expertise of public health nurses to assess, plan, and implement programs which promote health and prevent disease. The department employs approximately 750 nurses who provide family planning, child health, and preventive and treatment services for disease control. Public Health nurses are active in the community through involvement in health fairs and other educational opportunities. The department is an approved provider of continuing education by the Alabama State Nurses Association and offers numerous opportunities for continuing education hours via satellite and on-site classes. The division has responded to the public health needs during the COVID-19 pandemic by providing testing and vaccinations throughout the state.

Social Work

Social work staff serve as members of a multi-disciplinary team of professionals, skilled in using social work values, knowledge, and community resources to promote positive health outcomes, while respecting personal choice and promoting the health and well-being of individuals, groups, and communities. Public Health social workers act as liaisons within their respective communities, educating and advocating for changes

to improve poor outcomes related to social determinants of health. Public Health Social Work is an approved provider of Social Work Continuing Education by the Alabama Board of Social Work Examiners, and during 2021 provided social work continuing education credit for more than 50 programs both onsite and via satellite. The department employs approximately 125 social workers who provide care in county health department clinics, patient homes, and the local community. They are responsible for programmatic oversight in the county, district, and central office. Social workers provide direct services to a multitude of Alabamians in a variety of settings and programs within the department including Alabama Sexual Risk Avoidance Education, Alabama Personal Responsibility Education Program, All Babies, CHIP, Diabetes Self-Education, Elevated Lead, HIV Care Coordination, Home Health, Licensure and Certification, Newborn Screening Care Coordination, Newborn Hearing Screening, STD, Suicide Prevention, Telehealth, TB, Well Woman, and WISEWOMAN, and serve on several committees at the local level using the Collective Impact framework to address deeply entrenched and complex social problems that negatively impact the communities of Alabama.

Telehealth

Telehealth is a statewide program with 65 county health departments equipped with telehealth carts. Collaborating with 15 healthcare agencies, ADPH staff facilitate services such as nephrology, neurology, cardiology, behavioral health, and HIV follow-up. Telehealth staff work with special partners, such as the Alabama Lions Sight Association, Jacksonville State University's Nurse Practitioner Program, and UAB's Living Donor Program in order to reach patients where they are in rural communities. The Telehealth equipment is also utilized by ADPH staff for meetings and training events.

The office manages several grants that provide for the deployment of carts, specialty equipment, and funding for county health department staff, primarily nurses and social workers, who are trained as "telepresenters" to operate the equipment during the telehealth appointments. ADPH continues to improve and increase the usage opportunities of the telehealth carts by expanding the network of partners and with new equipment upgrades as funding becomes available.

In response to the COVID-19 pandemic, Telehealth program staff worked with ADPH Administration and a local vendor to establish the [alcovidvaccine.gov](https://www.alcovidvaccine.gov) website for vaccine appointment scheduling. During the pandemic, the Telehealth equipment was utilized for staff training and meetings to accommodate social distancing and reduce travel costs for the department.

BUREAU OF FINANCIAL SERVICES

The Bureau of Financial Services provides support to the department through financial and cost accounting management. Services rendered in support of the department and its goals include accounts receivable, payroll, accounts payable, purchasing, budgeting, grant accounting, production planning, and administrative support.

In FY2021, Financial Services managed the department's \$834 million budget using 361 internal budgets interfaced with 12 Executive Budget Office spending plan activities, and 239 internal funds interfaced with 13 State Comptroller's funds

in the State Treasury. The bureau managed a total of more than 100 federal grants with a value in excess of \$515 million and 413 contracts totaling over \$1.032 billion.

Included in the federal grants are WIC gross food outlays of \$77.9 million including \$29.3 million received from the department's infant formula rebate contract. The bureau provided fiscal agent services in the form of payroll, procurement, accounts payable, contract payment processing, and budget management to the Family Practice Rural Health Board and the Board of Medical Scholarship Awards.

Figure 35. Public Health Funding History (Fiscal Year)

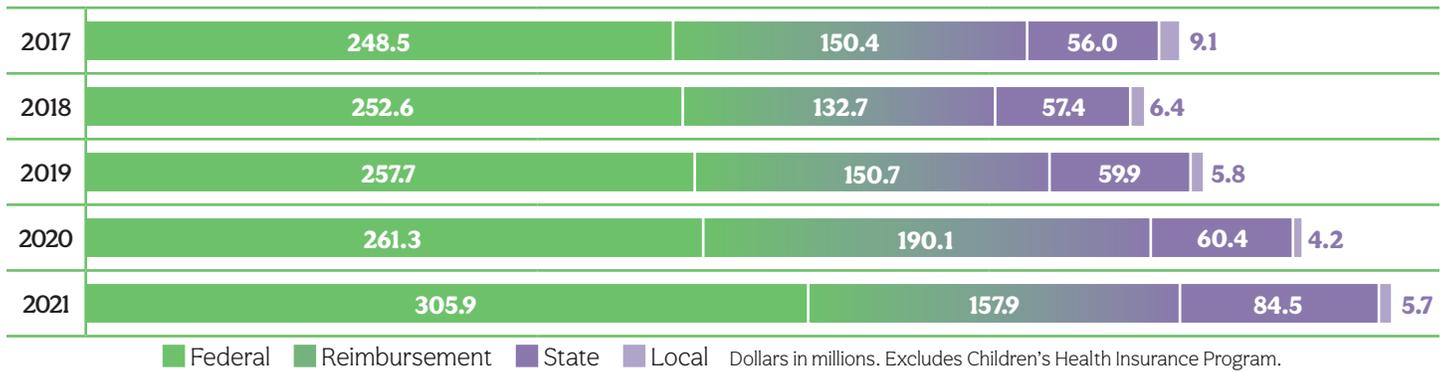


Figure 36. State Appropriations - Public Health (Fiscal Year)

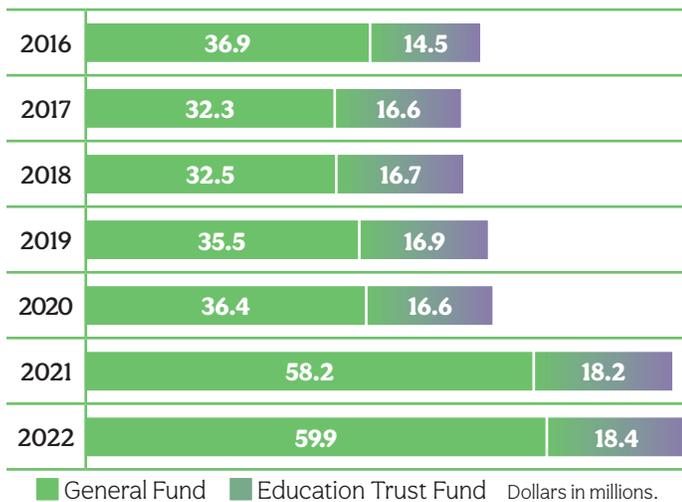
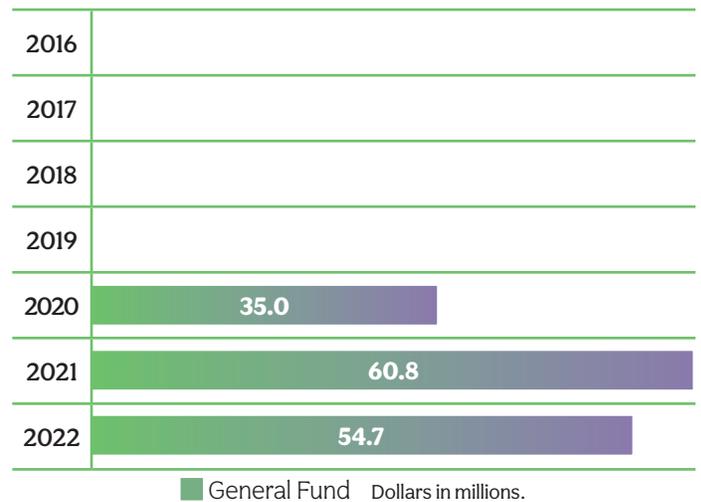


Figure 37. State Appropriations - CHIP (Fiscal Year)



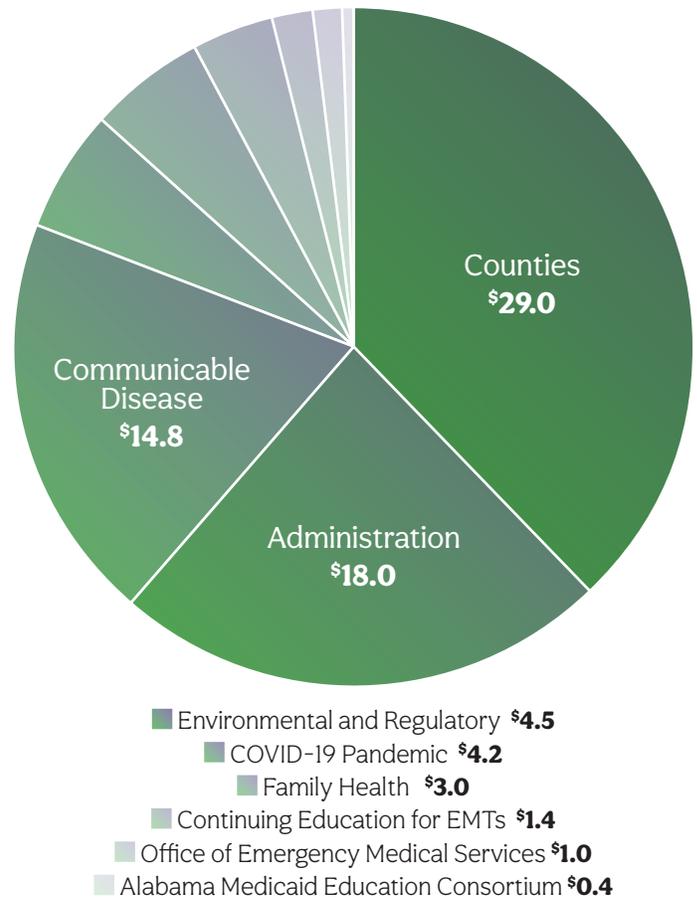
As a result of the COVID-19 pandemic, the bureau was responsible for increased grant funding provided to the department for use in responding to the pandemic. Additionally, the bureau provides all accounting services for the Alabama Public Health Care Authority (the authority). The State Committee of Public Health authorized the department to establish the authority as a public corporation in 1995. The mission of the authority is to build, furnish, and equip public health facilities throughout Alabama.

The authority has completed the Phase I, II, III, and IV building programs, which included constructing and renovating 66 facilities, including a new state laboratory and training center. The authority continues to propose and develop solutions for additional public health buildings and equipment needs.

The authority manages the Alabama Public Health Capital Maintenance Trust Program, which provides funding for a comprehensive, coordinated preventative maintenance improvement and replacement program for public health facilities in Alabama. The authority’s construction management firm provides technical assistance, advice, and program monitoring. The program spent \$896,250 during FY2021 to provide the following services:

- Periodic facility inspections to identify deficiencies, repairs, and maintenance needs.
- Maintenance contracts for heating, ventilation, air conditioning systems, fire alarms, and fire sprinkler systems.
- Roof systems maintenance/repair and a full range of other maintenance repair expenditures and renovations to maintain public health facilities in good working order.

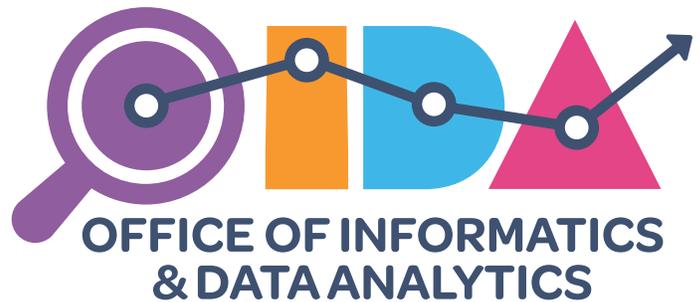
Figure 38. Use of State Funds – FY2021
General Fund and Education Trust Fund only (in millions)



OFFICE OF INFORMATICS AND DATA ANALYTICS (OIDA)

In June 2021, the department established OIDA led by the State Epidemiologist. OIDA, previously referred to as the Centralized Data Unit, will improve the department's data-driven decision making. The mission of OIDA is to ensure that the determinants and distributions of disease and health for Alabama are accurately assessed and the information is disseminated in a meaningful way. OIDA will provide support and input with epidemiologic integration, analysis, interpretation, determination, visualization, and dissemination.

The department will finally have access to hospital discharge data. The Hospital Discharge Data Act passed in March 2021 and requires hospitals to report data regarding a patient's discharge (without patient identifiers), information previously inaccessible. The newly established Hospital Discharge



Data Advisory Council drafted rules that will go into effect on March 17, 2022. OIDA is also facilitating communications between Alabama hospitals and the department for hospitals to implement electronic case reporting for reportable conditions.

GOVERNMENTAL AFFAIRS AND COMMUNITY RELATIONS

The Office of Governmental Affairs and Community Relations serves as the primary liaison between ADPH and various legislative and state government offices as well as community officials and organizations to address the most pressing public health issues affecting Alabama citizens. The office also is a resource for public health information needed by decision makers at all levels of government.

The office works to identify ways the department can partner with other community entities to ensure poor social determinants of health and risky health behaviors are addressed by connecting programs, populations, and resources. The office focuses on working across multiple organizations and through stakeholders to address the complex public health concerns that impact Alabama citizens.

Health Equity and Minority Health

In 2021, the Office of Health Equity and Minority Health was established. Its mission is to bring vision and imagination through a multisector frame to achieve equity in health, an established priority area for the department. Health equity is achieved when every person has the opportunity to attain his or her full health potential and no one is disadvantaged from achieving this

potential because of social position or other socially determined circumstances. Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment.

The re-envisioned Office of Minority Health, with stakeholder input, has developed a 2-year blueprint for elevating health equity as a priority. Utilizing reliable data to identify communities at highest risk of health disparities and inequities, the new office and its partners seek to deliver intentional strategies that will build health equity into daily practices.

Strategies are summarized as follows:

- Increase/improve data collection and reporting for populations experiencing a disproportionate burden of COVID-19.
- Build, leverage, and expand infrastructure support for COVID-19 prevention and control among populations at higher risk and underserved.
- Mobilize partners and collaborators to advance health equity and address social determinants of health as they relate to COVID-19 health disparities among populations at higher risk and underserved.

BUREAU OF HEALTH PROVIDER STANDARDS

Mission Statement

The mission of the Bureau of Health Provider Standards is to improve quality of care and quality of life for healthcare consumers and to reduce adverse outcomes through the process of licensure inspection and certification of healthcare providers.

The bureau consists of several units that include, but are not limited to Assisted Living, Medicare Other, Long Term Care, and Clinical Laboratory Improvement Amendment (CLIA). Each unit serves only in its specialty and performs license inspections, unannounced surveys for complaints and compliance, and certification surveys when required. Provider Services processes applications for initial licensure, certification, change of ownership, annual license renewal, and changes in provider information.

Medicare Other

The Medicare Other Unit was not able to complete all the FY2021 Centers for Medicare and Medicaid Services (CMS) workload due to COVID-19. In May 2021, the bureau began conducting normal recertification survey activity for Home Health, Hospice, and End Stage Renal Disease Treatment Centers. The bureau has been able to conduct initial licensure, initial certification, Emergency Medical Treatment and Labor Act, and immediate jeopardy/complaint surveys. Workload remains backlogged due to the COVID-19 break between March 2020 and May 2021.

Long Term Care

The Long Term Care Unit, during FY2021, completed 76 of the 228 CMS standard surveys and investigated 169 complaints and facility reported incidents. The statewide average interval requirement between consecutive standard health surveys must be 12.9 months or less. The statewide average was 16.1. This was due to the COVID-19 pandemic, the suspension of CMS surveys in March 2020, and the requirement to begin conducting infection control surveys of long-term care facilities. The Long Term Care Unit conducted at least one infection control survey of all its 228 providers with some multiple visits to review infection control processes and mitigation. Since October 1, 2020, the unit conducted 246 infection control surveys. The Long Term Care Unit hired 7 Licensure and Certification Surveyors in FY2021. Four of the 7 hired surveyors completed the basic long-term care training and have passed the Surveyor Minimum Qualifications Test to conduct federal surveys of nursing homes.

Assisted Living Facilities (ALFS)

In 2021, the ALF Unit completed 38 ALF surveys and 40 Specialty Care Assisted Living Facility (SCALF) surveys for a total of 78. Due to the pandemic, the unit focused on investigations of care and complaints, and 192 complaints were investigated. Nine facilities had probational licenses, and there were 192 licensed ALFs and 107 licensed SCALFs.

CLIA Laboratory

Any laboratory performing clinical laboratory tests for the purpose of diagnosis, treatment, or prevention is required to be CLIA certified. CLIA offers four types of certificates commensurate with the complexity of testing performed at the laboratory: Certificate of Waiver, Certificate of PPMP (Provider-Performed Microscopy Procedures), Certificate of Compliance (for high and/or moderate complexity testing), and Certificate of Accreditation (for high and/or moderate complexity testing).

CLIA serves to assess how clinical laboratories monitor their pre-analytic, analytic, and post-analytic systems to ensure the quality of testing provided for the patients/clients. Although CLIA's main objective is to determine a laboratory's compliance with the regulations, CMS CLIA seeks to aid the laboratories in improving patient care by promoting an educational survey process. Since April 2021, CLIA has increased its surveyor pool by one full-time surveyor; and now currently serves Alabama with two full-time surveyors. The suspension of surveys from March to September 2020, due to the COVID-19 pandemic, caused a significant backlog of surveys, usually performed in alternate years. The pandemic increased the responsibilities of the CLIA Unit, especially due to numerous laboratories implementing COVID testing; as well as special-focused surveys protocol implementation by CMS.

CLIA successfully completed 245 recertification and initial surveys for FY2021 and finished the year at 93.2 percent completion of usual survey processes. In addition, CLIA successfully investigated all complaints received during FY2021. The CMS Regional Office Technical Consultant conducted federal monitoring surveys for each of the surveyors on staff

Figure 39. Summary of Licenses and Investigations

Facility Type	Total Complaints Investigated	Facilities with Probational Licenses
Abortion Centers	0	0
ALFs/SCALFs	192	10
Ambulatory Surgical Centers	0	0
End Stage Renal Disease Treatment Centers	1	0
Home Health Agencies	1	0
Hospitals	15	0
Hospice Agencies	5	0
Nursing Homes	169	0
Independent Laboratories	3	0

and found no deficits in the surveyors' performance. Not only is CLIA responsible for laboratories with CLIA certification, but also clinical laboratories in the state of Alabama, licensed and seeking licenses as independent clinical and independent physiological laboratories.

Provider Services License And Certification

Certification: There are 1,111 certified facilities and agencies in Alabama.

Licensure: There are 1,639 licensed facilities in Alabama. The Provider Services License Unit has continued to process applications for initial facility licensure and license amendments. There were 186 licenses processed for FY2021.

Figure 40. Licensed Health Care Facilities and Agencies

Abortion or Reproductive Health Centers	5
Ambulatory Surgical Centers	51
ALFs	192
SCALFs	108
Cerebral Palsy Centers	1
End Stage Renal Disease Treatment Centers	184
Freestanding Emergency Departments	7
Hospice Agencies	180
Hospitals	117
Independent Clinical Laboratories	445
Independent Physiological Laboratories	70
Nursing Homes	231
Rehabilitation Centers	31
Sleep Disorder Centers	17
Total	1,639

CENTER FOR HEALTH STATISTICS

The Center for Health Statistics operates the vital records system and collects and tabulates health-related statistical data for the state of Alabama. The center files, stores, and issues certified copies of vital records including birth, death, marriage, and divorce certificates for events that occur in Alabama. In addition to registering vital records and issuing certified copies, the center corrects and amends birth and death records and creates new certificates after legal actions. The center consists of the following divisions: Administrative Services, Quality Assurance and Registration, Record Services, Special Services, and Statistical Analysis.

An automated vital records system called VISION, or Vital Statistics Image Oriented Network, allows vital records to be issued in all Alabama county health departments. Customers can obtain vital records from the center through county health departments usually within 15 minutes or less. Customers may also order records over the Internet, by telephone for next business day delivery, or by regular mail.

More than 185,751 vital records were registered with the center in 2021. All birth records are registered electronically, and approximately 96 percent of divorce and 98 percent of death

certificates are registered electronically. The center continues to increase the number of death records registered through the Electronic Death Registration System (EDRS), which allows families to obtain certified copies more quickly. A significant addition to the EDRS, the supplemental medical certification, allows medical certifiers to electronically make changes, corrections, or additions to the cause of death information on a death certificate. Approximately 2,125 supplementals were completed electronically in 2021. Other changes to vital records are made in the center by the Special Services Division, which created approximately 5,225 new birth certificates following adoption or parentage determination and amended approximately 3,025 birth certificates and 1,440 death certificates.

The center's Statistical Analysis Division conducts studies and provides analyses of natality, pregnancy, general mortality, infant mortality, causes of death, marriage, divorce, and other demographic and health-related data for public health policy and surveillance. Results are distributed through numerous publications, reports, presentations, special tabulations, and the department's website to the public, news media, researchers, government or private agencies, and various units within the department.

Figure 41. Certified Copies of Vital Records Issued, 2021

The center issued 853,012 certified copies of vital records through county health departments, mail, Internet, and operator-assisted requests.

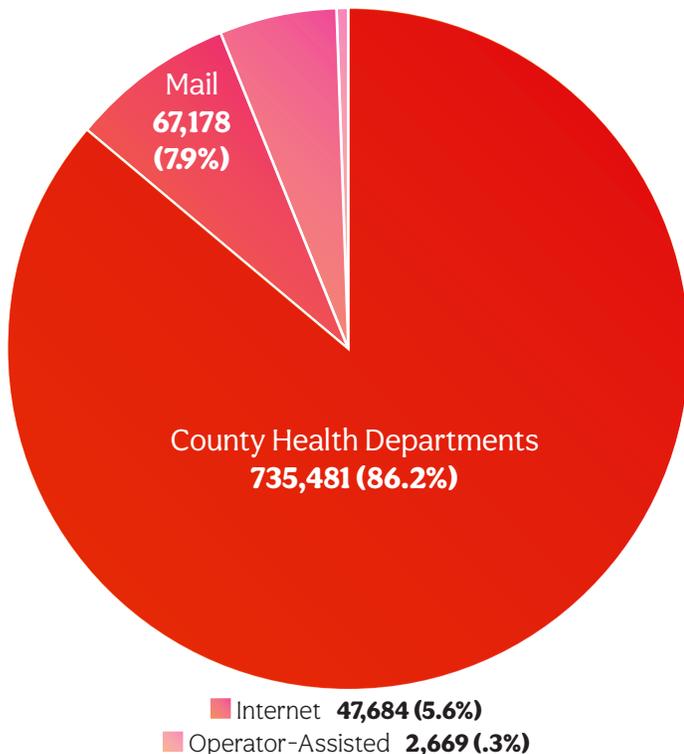


Figure 42. Death Certificate Registration, 2021

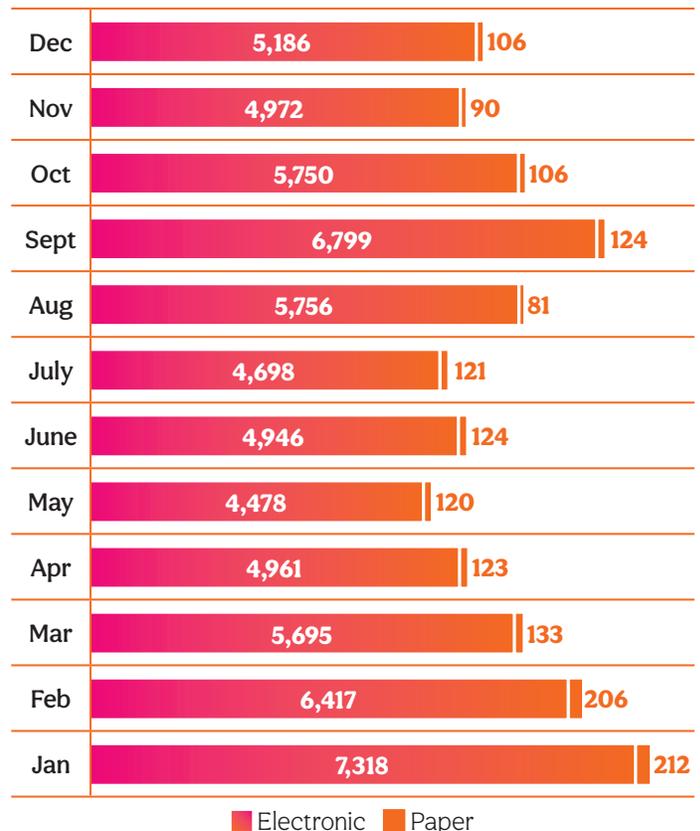


Figure 43. Vital Statistics, 2020

	Number	Rate/Percent	
Births	57,643	11.7	(Per 1,000 Population)
Births to Teenagers	3,837	12.6	(Per 1,000 Females Aged 10-19 Years)
Low Weight Births	6,228	10.8	(Percent of All Live Births)
Births to Unmarried Women	27,877	48.4	(Percent of All Live Births)
Deaths	64,779	13.2	(Per 1,000 Population)
Marriages	35,826	7.3	(Per 1,000 Population)
Divorces	18,022	3.7	(Per 1,000 Population)
Induced Terminations of Pregnancy	7,467	7.8	(Per 1,000 Females Aged 15-44 Years)
Infant Deaths (Neonatal + Postneonatal)	404	7.0	(Per 1,000 Live Births)
Neonatal Deaths (0-27 days of life)	224	3.9	(Per 1,000 Live Births)
Postneonatal Deaths (28-364 days of life)	180	3.1	(Per 1,000 Live Births)

Total estimated state population is 4,921,532.

Figure 44. Alabama's Leading Causes of Death, 2020

Cause of Death	Rank	Number	Rate ¹	Population
Total		64,779		4,921,532
Heart Diseases	1	14,739	299.5	
Malignant Neoplasms	2	10,458	212.5	
Coronavirus Disease 2019	3	6,549	133.1	
Chronic Lower Respiratory Diseases	4	3,430	69.7	
Cerebrovascular Diseases	5	3,390	68.9	
Alzheimer's Disease	6	3,094	62.9	
Accidents	7	3,005	61.1	
Diabetes Mellitus	8	1,450	29.5	
Influenza and Pneumonia	9	1,114	22.6	
Nephritis, Nephrotic Syndrome, and Nephrosis	10	1,083	22.0	
Septicemia	11	1,035	21.0	
Chronic Liver Disease and Cirrhosis	12	966	19.6	
Suicide	13	793	16.1	
Parkinson's Disease	14	715	14.5	
Essential (Primary) Hypertension and Hypertensive Renal Disease	15	706	14.3	
All Other Causes, Residual		12,252		

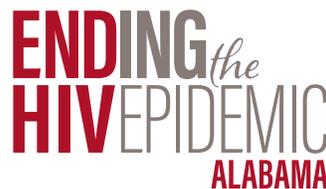
¹Rate is per 100,000 population.

OFFICE OF HIV PREVENTION AND CARE

The mission of the office, in collaboration with community partners, is to reduce the incidence of HIV infections, increase life expectancy for those infected, and improve the quality of life for persons living with or affected by HIV. Reducing new HIV infections by 75 percent in 5 years and by 90 percent by 2030 are the goals of **Ending the HIV Epidemic: A Plan for America (EHE)**, with multiyear funding appropriations directed to highly impacted communities nationwide.

An EHE Community Planning Committee of statewide stakeholders participated in every phase of developing the strategic plan. The comprehensive needs assessment and community engagement process revealed some overarching themes for the Alabama blueprint plan to include:

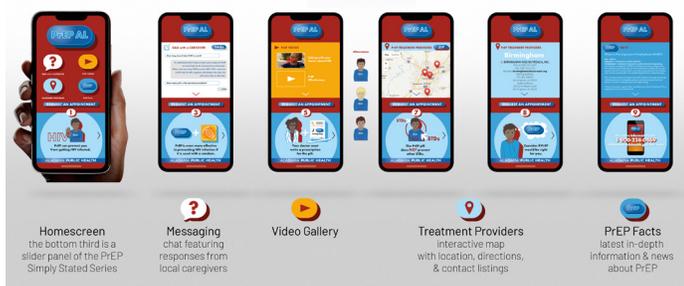
- Stigma
- Education
- Lack of resources
- Cultural considerations for improving health outcomes



The committee will continue to have virtual monthly meetings to assess community needs and monitor the plan implementation activities of the EHE Branch. In addition, four new voices have been added to assist in this new initiative.

The Prevention Division also launched the pre-exposure prophylaxis (PrEP) Alabama app. PrEP is a medicine people at risk for HIV can take to prevent getting HIV from sex or injection drug use. This app provides an opportunity for a potential client to communicate with an AIDS service organization that provides PrEP within each public health district. The app includes an interactive map with location, directions, contact listings, and basic information about PrEP.

Alabama continues to experience an HIV epidemic of moderate magnitude when compared to other states. A cumulative total of 23,336 HIV infections have been diagnosed among

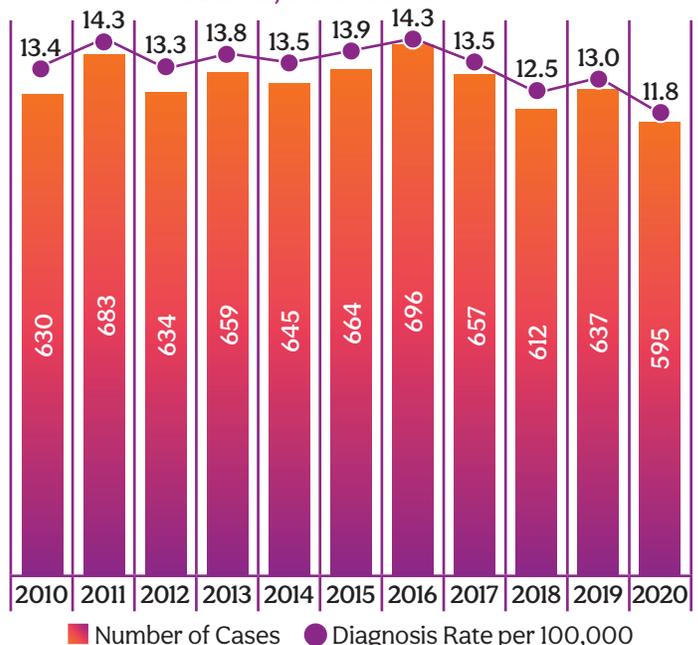


Alabama residents since reporting began in 1982. As of December 31, 2021, 14,121 individuals in Alabama had been diagnosed with HIV.

The chart below represents reported cases and case rate per 100,000 for the past 10 years. A total of 595 HIV/AIDS cases were reported to the HIV Surveillance Branch, Data Management Division, in 2020. The case count rate is 11.8 cases per 100,000 population. The rate of new HIV/AIDS cases was highest among blacks (30.5 cases per 100,000 population). The rate of HIV/AIDS cases was lower among Hispanics (12.1 cases per 100,000 population) and whites (4.0 cases per 100,000 population). More than 48 percent of the HIV/AIDS cases reported in 2020 were residents of Jefferson (122 cases), Montgomery (86 cases), and Mobile (77 cases) counties.

As of December 31, 2021, the office served 3,766 clients through the Alabama Drug Assistance Program (ADAP). Of that number, 1,025 uninsured individuals received ADAP-funded medications; 2,665 individuals were provided ADAP-funded health insurance; and 76 individuals were provided ADAP-funded Medicare Part D prescription insurance. Presently, 17 providers receive funding through the department to provide core medical and support services to HIV clients.

Figure 45. Newly Diagnosed HIV/AIDS Cases, Alabama, 2010-2020



2020 is the most recent year for which data is available.
Source: Data Management Division, Office of HIV Prevention and Care

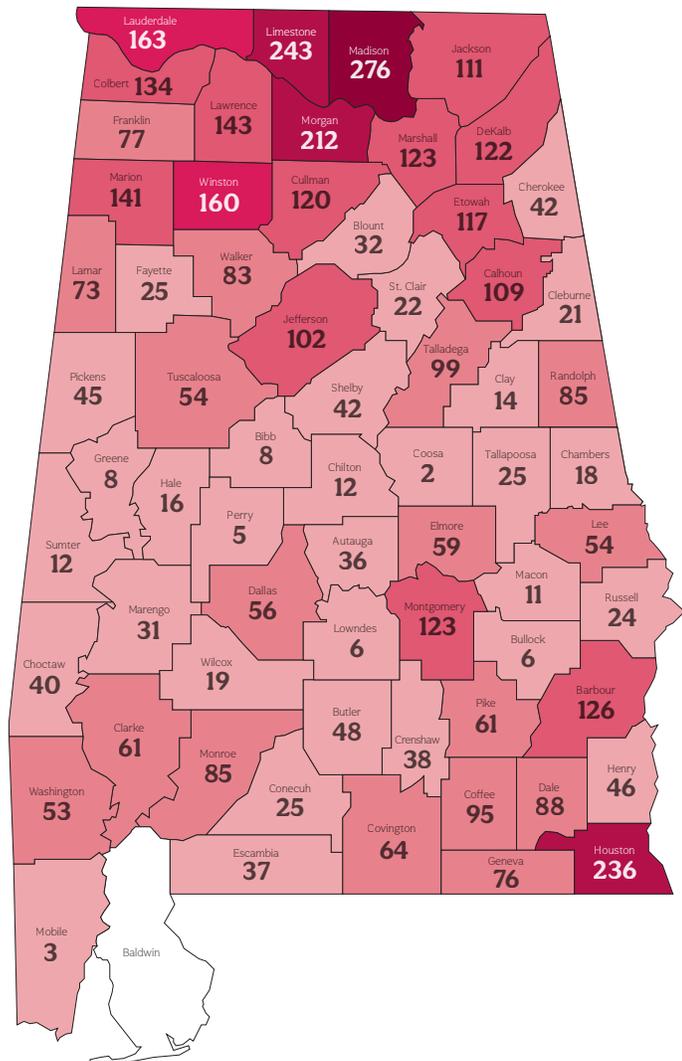
BUREAU OF HOME AND COMMUNITY SERVICES (HCS)

The Alabama Department of Public Health's Homecare Program began serving the citizens of Alabama in 1967. HCS administers home care services and remote patient monitoring to patients, majority homebound, statewide. The bureau's mission is to deliver high-quality services and compassionate care provided by competent and professional staff to patients in the home and community settings throughout Alabama.

Patients Served

HCS currently has 24 branch offices across the state responsible for coordinating care between patients, caregivers, and their physicians. HCS administered statewide services to patients of all ages from pediatric to geriatric. In fact, HCS is currently the only agency offering pediatric home care in the state of Alabama.

Figure 46. Home Health Patients Served by County, FY2021



Home Care Services

Home care services are prescribed by a physician based on medical need. Services are provided by registered nurses, licensed practical nurses, home health aides, and therapists.

Figure 47. Patients Served by Program, FY2021

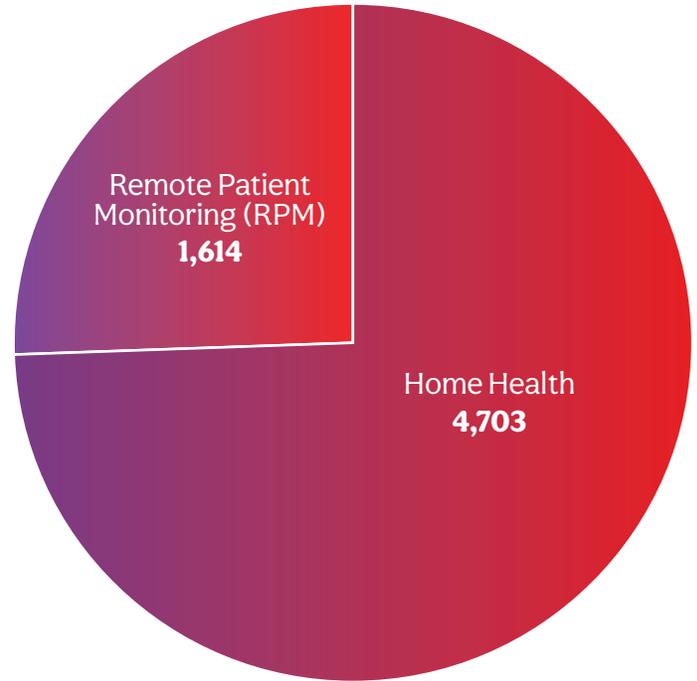
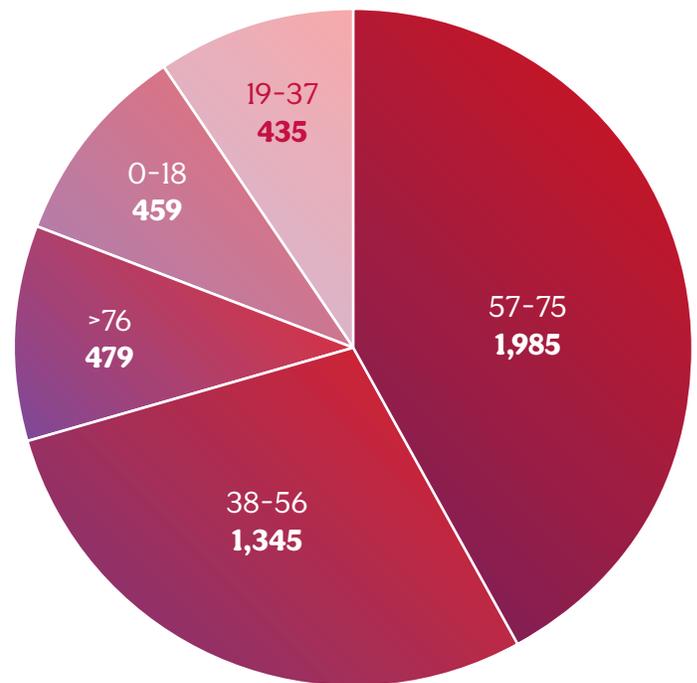


Figure 48. Home Health Patients Served by Age Group, FY2021



Services include:

- Skilled nursing
- Personal care
- Wound care
- Intravenous therapy
- Diabetic care
- Cardiovascular care
- Post hospital assessment and teaching
- Urinary catheter management
- Physical, occupational, and speech therapy

Nurses, aides, and therapists of HCS provided a total of 175,671 home care visits statewide to patients covered by Medicare, Medicaid, and other insurance in 2021.

According to Alabama Medicaid Agency's Statistical Support Unit, homebound recipients received a statewide total of 207,128 home care visits from multiple home care agencies in FY2021. HCS provided 154,196 of those visits to patients who are covered by Medicaid, 74 percent of Alabama Medicaid Agency's statewide total.

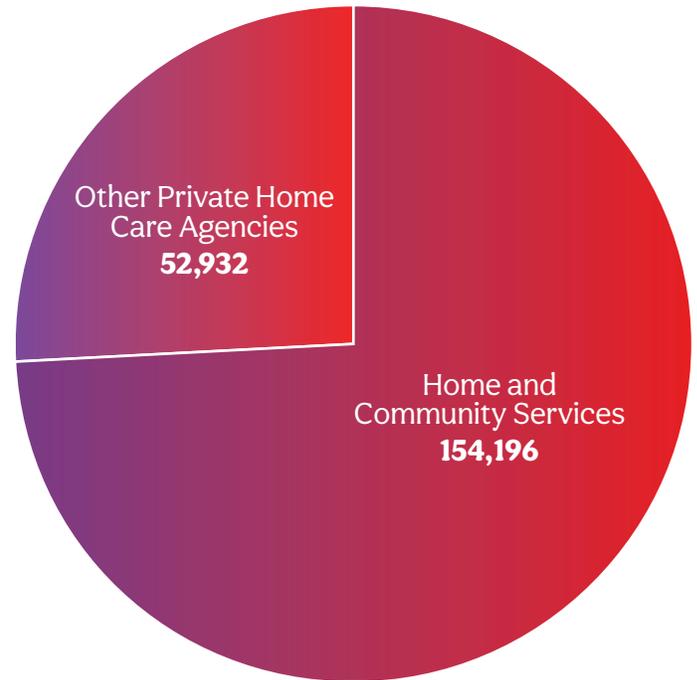
Remote Patient Monitoring (RPM)

The RPM Program combines resources from ADPH Home Care, Alabama Medicaid Agency, and the University of South Alabama to provide in-home monitoring service for specific chronic illnesses. Medicaid patients who have congestive heart failure, diabetes, and hypertension qualify for the in-home monitoring program. The goal of RPM is to decrease exacerbation episodes, emergent care visits, hospital admissions, and costs. HCS's RPM managers provided a total of 16,447 RPM service hours.

Figure 49. Home Health Visits by Discipline and Payor, FY2021

	Medicare	Medicaid	Other
Home Health Aide	3,623	75,294	1,971
Medical Social Worker	0	7	0
Physical Therapy	3,372	10	1,295
Skilled Nurse	7,445	78,885	3,769

Figure 50. Alabama Medicaid Home Health Visits Statewide, FY2021



OFFICE OF HUMAN RESOURCES

The mission of the office is to ensure the department's workforce is provided a safe environment with equal opportunity for learning and personal growth. To strengthen the workforce, the office has implemented "ADPH Lunch and Learn: Navigating the Application and Hiring Process for State Government." This is a 1-hour session offered to colleges and universities via Webex, mobile device, or telephone. The purpose is to recruit from a diverse, qualified group of candidates to help the department to be innovative and productive in providing services to clients. This session is also available to employees who would like to advance in their career or pursue new opportunities within the department.

Staff continued to work persistently during the year 2021 processing personnel actions, such as new hires, promotions, transfers, performance appraisals, disciplinary actions, dismissals, leave reports, and State Employee Injury Compensation Trust Fund claims.

2021 Service Activities

- Attended 9 career fairs
- Conducted lunch and learn virtual sessions with universities/colleges for 250 students
- Conducted "Interview and Selection" training for 145 supervisors
- Conducted "Performance Appraisal" training for 146 supervisors
- Conducted "Progressive Discipline" training for 150 supervisors
- Conducted "Work Life Balance" training for 114 department staff
- Conducted "Understanding Yourself – The Keys to Success" training for 187 department employees
- Conducted "Family Medical Leave Act" training for 141 supervisors
- Coordinated statewide participation in recruitment activities
- Updated and revised the health services administrator series
- Processed salary range increases for 25 classifications in the nursing series

ADPH Minority Employment Comparison

The department is comprised of 2,605 merit system employees, 39.4 percent are minority employees. According to the State of Alabama Personnel Department, 2020 Annual Report, the department is comparable to the state minority percentage of 42.9 percent. (Source: State of Alabama Personnel Department, Annual Report 2020)

Figure 51. 2021 Personnel Actions Processed for Merit Employees

New Hires	377
Promotions	212
Dismissals	37
Retirements	153
Transfers Out	45
Other Separations	172
Employee Assistance Program Referrals (employees and dependents)	111
Hours of Leave Donations	1,780.30
Annual Appraisals	1,954
Probationary Appraisals	513

Figure 52. Alabama Labor Market (LM) vs. ADPH, 2021*

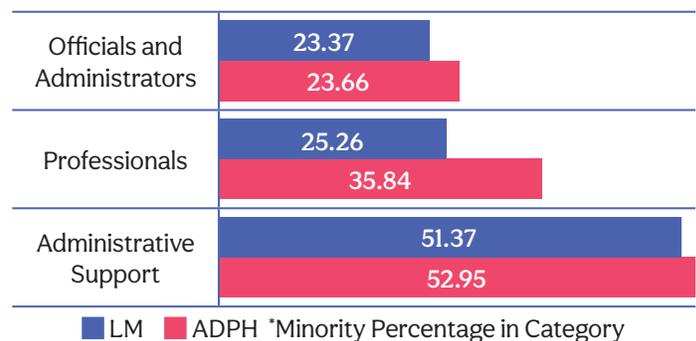


Figure 53. 2021 Turnover Rates in Districts and Central Office

	Total Employees	Turnover Rate (%)
Central Office	1,163	17.8
Districts	1,442	18.9
Statewide	2,605	18.4

BUREAU OF INFORMATION TECHNOLOGY

The mission of the Bureau of Information Technology (IT) is to plan, provide, and support the information and logistics needs of the department. IT's five divisions procure, develop, and support information technology systems to supply information to department and public users through an integrated information processing and telecommunication structure.

The Logistics Division manages the department's property assets, forms, emergency preparedness supplies, mailroom services, and vehicles. This division has the statewide responsibility of auditing every piece of accountable property assigned to the department and continually strives to find better ways to inventory and more efficiently account for all assigned property. The division has been relabeling all accountable property to take advantage of emerging technology and continue its long-standing record of perfect property audits.

The Technical Support Division created a new network security team to provide a much-needed boost to the overall security of the department's network. In a short time, this team has converted to a new antivirus product called Cisco AMP, as well as implemented a new Web filter product called Umbrella. This team enables the department to have a much more robust network security platform and adds an additional layer of protection by scanning the network for critical vulnerabilities and working to mitigate any vulnerabilities or issues found. Wide Area Network (WAN) Support saw a 61 percent increase in closed work orders during the past year. While working through increased work order requests, all network routers, switches, and uninterruptible power supplies were replaced, in addition to 50 percent of the wireless access points and Voice Over Internet Protocol phones in county health departments. RSA Tower Support continued to provide IT equipment relocation support to several divisions that needed all or most of their IT equipment moved internally to other floors within the Tower. The network infrastructure that was put in place for the

Figure 54. Logistic Support Facts - 2021 and 2020 Comparison

Logistics Items Reported	2021 Quantities	2020 Quantities
Equipment Inventory Items	24,505	23,242
Equipment Inventory Value	\$57,343,320	\$47,860,484
Forms Managed	1,150	2624
Form Packages Sent	6,843	4272
Promotional Items Managed	900	1797
Department Vehicles	60	60
Emergency Response Vehicles, Trailers, etc.	86	88

Alabama Army National Guard had to be removed when its COVID-19 support assignment ended. A new wireless controller was deployed, and several Windows 2012 servers were upgraded to Windows 2019 because of the approaching end of life for the operating system. Additional projects planned are as follows: replacement of all IT hardware on telemedicine carts, adding RightFax functionality for county health departments, implementing Amazon Connect with Voice Foundry for Emergency Preparedness, converting to a new in-house WebEx Control Hub, and setting up OneDrive cloud storage.

Database Administration Division is responsible for managing the relational databases for the department. This includes aiding developers in the design of relational database models, creating the database objects, installing database software, managing the database resources, training users on the Relational Database Management System (RDBMS), training users on related database subjects, and establishing procedures, standards, and policies to be followed by the developers and users of these relational databases. The division develops scripts to be used in PL/SQL, stored procedures, packages, package bodies, functions, and triggers which support the correctness and consistency of departmental

Figure 55. IT Support Facts - 2021 and 2020 Comparison

IT Support Items Reported	2021 Quantities	2020 Quantities
Help Desk Calls	31,056	29,376
Personal Computers/ Laptops Supported	5,733	5407
Windows Servers Supported	402	397
Personal Computers/ Laptops Installed	2,708	5007
WAN Support Completed Work Orders	3,232	1979
IP Phone Devices Supported	5,079	5266
Windows 2016 Servers Deployed	2	82
Windows 2019 Servers Deployed	45	N/A
Smart Phones Supported	1,751	914
Technical Support Projects Completed	19	15
Voice Mail Boxes Supported	2,771	2659
Statewide Antivirus/Encryption Upgrades	3,231	4267
IP Gateways Supported	78	78
WAN Support Miles Driven	131,673	136,347

Figure 56. Promoting Interoperability Registration - Breakdown by Program

Program	2021 Eligible Professionals Additions	Total Eligible Professional Count	2021 Eligible Hospital Additions	Total Eligible Hospital Count
Immunization (IMM)	1,692	14,690	0	95
Electronic Lab Reporting (ELR)	NA	NA	0	97
Syndromic Surveillance (SS)	1,669	6,188	1	94
Alabama Statewide Cancer Registry (ASCR)	1,692	5,777	0	37
Electronic Case Reporting	2,481	2,801	14	36
Prescription Drug Monitoring Program (PDMP)	3,171	3,620	2	17
Other Specialized Registries	10	551	0	9

data stored in MS SQL and Oracle RDBMS. The division manages/monitors over 460 Oracle and MS SQL databases on 69 database servers for performance issues daily. Below are a few of the division’s major enhancements or upgrades for 2021:

- Upgraded ImmPRINT database servers from Windows 2012 to Windows 2016.
- Upgraded Cancer Registry database servers to Windows 2019 and SQL 2019.
- Created a new SQL database server to house historical McKesson Home Health data.
- Converted the current Food Scores database from Oracle to SQL.
- Completed the databases requested for Environmental Services Animal BITE Project.
- Completed the relocating of Radiation Inspection and Safety Enforcement databases to their own database server environment.

Business and Information Architecture (BIA) Division

continues to look for ways to enhance and improve user experience, functionality, security, and responsiveness of the different systems supported. Noted below are a few of the division’s major enhancements or upgrades for 2021:

BIA-Promoting Interoperability Team has received support and been in partnership with the Alabama Medicaid Agency (AMA) for the past 8 years. AMA has been an invaluable partner and resource during IT’s development of the Promoting Interoperability Program. Because of this partnership, this program continues to evolve and improve users’ ability to monitor outbreaks, enter and evaluate data, access data for reporting, and send or receive data to/from multiple public health registries and systems securely.

Interface Engine (Rhapsody) processed from (January to October 2021) the following message counts:

- IMM – 52,700,000 messages (tracking IMM messages through Rhapsody began in July 2021)
- ELR – 1,154,000 messages
- SS – 14,600,000 messages
- ASCR – 396,000 messages

The number of ELR and SS messages received in 2021 more than doubled the amount reported for 2020.

BIA-Systems Management Team (SMT) deployed the Vaccine Clinic, Monoclonal Antibodies, and Vaccine Distribution Dashboards. SMT revamped and combined the ID&O COVID-19 Surveillance and Risk Indicator Dashboard to simplify the public data being shared. SMT used GIS software and tools to assist decision makers with determining where vaccine and COVID-19 therapies should be located throughout the state to best serve the public. This team also worked with various internal customers to assist them with determining their current and future electronic content management needs. SMT stands ready to assist any internal customers with the implementation of the appropriate Laserfiche solution when requested.

BIA-ELR implemented a support ticketing system called osTicket. OsTicket serves as a centralized hub for all ELR communication and assists IT business analysts with efficient and effective handling of daily requests and inquiries. Since implementation of this tool, the ELR team has realized benefits, such as the following:

- Better prioritization of ELR requests as tickets are created for each e-mail received. This helps prevent e-mails from being overlooked.
- Ability to easily review tickets at a glance and quickly make assignments to other team members when necessary.
- Ability to organize support tickets into separate and customizable categories for at-a-glance review of tickets by a specific topic.
- Centralized communication relating to a specific inquiry or request in one location.
- Tracking for each ticket created by an audit trail; includes user information and date/time data.
- Ability to set reminders that alert users when tickets are overdue and require additional action.
- Faster response time to inquiries as users are allowed the ability to customize and easily select prepared responses usually given when responding to requests. This provides better customer service as communication remains consistent across the board.

BIA-ImmPRINT team made numerous upgrades to the ImmPRINT system. Listed are some of the more prominent enhancements or features:

- Created special project enrollments to allow providers to enroll for COVID-19 and adult flu vaccination programs.
- Developed and implemented the Vaccine Ordering Management System (VOMS) module which enables providers to facilitate orders, returns, wastages, and transfers of COVID-19 vaccines following CDC guidelines and meeting program requirements. Additionally, VOMS provides a dashboard for the department’s program team to generate and process in-bound and out-bound files for provider master data, vaccine returns, vaccine wastages, vaccine orders, and vaccine shipments data to the CDC via its vaccine tracking system.
- Completed the automation needed for generating and uploading the COVID-19 Vaccine Reporting Specifications and Data Lake files to the CDC on a daily basis.
- Built interfaces to load COVID-19 vaccine records from county health departments and mass vaccination clinics.
- Implemented Privacy Preserving Record Linkage project.
- Geocoded provider addresses in ImmPRINT to meet the GIS dashboard specifications.
- Automated HL7 security credentials to establish the connection for provider sites interested in electronic data exchange.

BIA-Financial Services Support Team (FSST) works with all financial applications. The team modified the Web Roster Vaccination System, so it could be used for COVID-19 vaccine

Figure 57. Rabies and Animal Control Cases Processed - March 1 to November 15, 2021

East Central	372
Mobile	428
Northeastern	616
Northern	1,302
Southeastern	278
Southwestern	378
West Central	373

billing and to provide data to ImmPRINT. FSST continues to implement modifications and updates as COVID-19 changes and CDC requirements are adjusted to meet these continuing changes. The team supported Financial Services with system programming enhancements to assist with managing funds received from the CARES Act.

BIA-Wellness Team completed enhancements to rabies prevention and control in the Environmental Services system. These enhancements help make tracking and reporting animal bite cases easier. Shown above are the 3,747 cases reported by district for the specified time period.

BUREAU OF PREVENTION, PROMOTION, AND SUPPORT

Behavioral Health

Injury Prevention and Youth Tobacco

The Alabama Child Passenger Safety Program strives to reduce injuries to children in motor vehicle accidents by promoting the proper use of child passenger restraints. The program educates Alabamians on the safe use of child restraints, recruits and trains individuals to become certified child passenger safety technicians, and establishes and maintains car seat fitting stations across the state. Due to COVID-19 restrictions, car seat fittings and technician trainings were suspended for most of 2021. In September, monthly car seat clinics resumed with car seat fittings available by appointment only, providing car seats to and checking seats for the public.

The Rape Prevention and Education Program, funded by the CDC, provides prevention of sexual violence perpetration and victimization by decreasing sexual violence risk factors and increasing protective factors for the general population through community level interventions in 34 Alabama counties through grants to the Alabama Coalition Against Rape (ACAR) and 10 rape crisis centers. The Preventive Health and Health Services Block Grant provides crisis intervention services to rape victims; in-service training for law enforcement, social services, and medical professionals; and training for community volunteers to respond to victims of sexual assault in the state in 23 counties through grants to ACAR and 7 rape crisis centers. COVID-19 continued to present challenges for prevention educators at rape crisis centers in 2021 because much of the service involves working with the public. However, prevention educators found success engaging in community-level work that involved changing social norms and creating safer environments as opposed to providing education in classroom settings. Trainings were conducted on virtual platforms to ensure the safety of the educators and the public.

In 2019, suicide was the twelfth leading cause of death in the state, with 804 citizens lost to suicide, compared to 587 deaths due to homicide. The Alabama Youth Suicide Prevention Program began its final year working to reduce the rate of suicides and suicide attempts for youth ages 10 to 24. The program provides grants to crisis centers, the state suicide prevention coalition, and colleges and universities to provide education, outreach, screenings, and referrals to promote suicide prevention, awareness, and services in communities throughout the state. Suicide prevention program partners conducted 265 trainings, resulting in 5,663 individuals trained as gatekeepers to identify and refer individuals at risk for suicide.

Surveillance and Prevention

Two of this branch's three programs review various types of deaths that occur in Alabama and all have a primary focus of prevention. Prevention strategies are developed, and programs are enhanced or implemented based upon the findings of

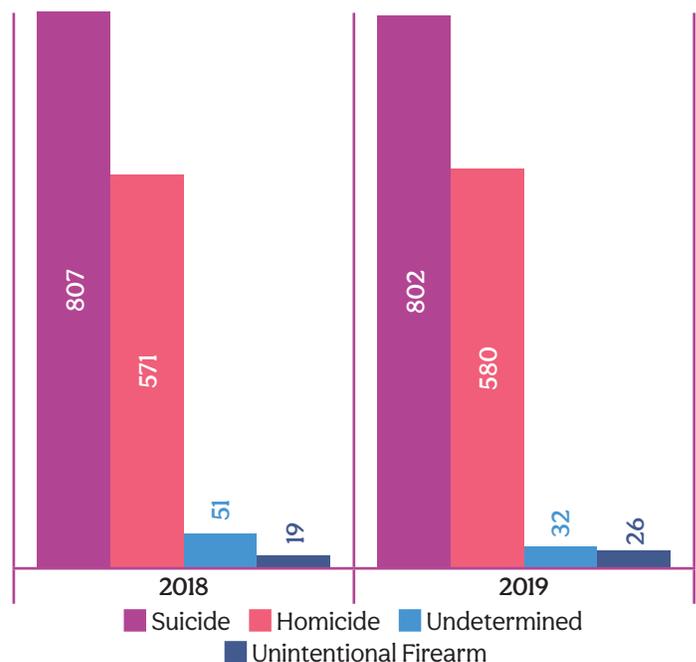
reviews, trends and characteristic analyses, and identification of risk factors. A third program conducts inspections at all Alabama retailers that sell tobacco in an effort to keep minors from purchasing tobacco.

Alabama Violent Death Reporting System (AVDRS)

AVDRS is a statewide surveillance program currently working on its third full year of data, the 2020 calendar year. Data contributors to the program include law enforcement, coroners/medical examiners, the Alabama Department of Forensic Sciences, the OEMS, the Center for Health Statistics, and district attorneys. A unique feature of the program is the breadth of information routinely collected. In addition to standard demographics, cause, and manner of death, the program emphasizes collecting descriptions of events and known circumstances contributing to violent deaths.

The goal of AVDRS is to assist with development and improvement of violence prevention programs in the state by providing data on trends and characteristics of violent deaths. In late 2020, the branch developed a fact sheet titled an Overview of Violent Deaths in Alabama, 2018, to disseminate data. AVDRS routinely shares data and information with its data providers, advocacy groups, legislators, and other interested parties to provide an analysis, awareness, and insight of the violent deaths in the state. Furthermore, to assist data providers in understanding the needs of AVDRS and improve death data collection in Alabama, a training module has been produced for state coroners/medical examiners and law enforcement personnel.

Figure 58. AVDRS - Manner of Death per Calendar Year



The state of Alabama had approximately 1,448 violent deaths during 2018 and 1,440 during 2019 that qualified for inclusion in AVDRS. The majority of the violent deaths documented were due to suicide for both 2018 and 2019.

AVDRS works in collaboration with the Overdose Data to Action Grant to conduct surveillance of drug overdose deaths in the state through its sister program, the State Unintentional Drug Overdose Reporting System. Through this collaboration, more timely and comprehensive data on drug-related deaths can be provided in the state for prevention purposes.

Child Death Review

The Alabama Child Death Review System (ACDRS) reviews and identifies unexplained or unexpected child deaths in Alabama with the purpose of developing strategies to prevent such deaths from occurring. Forty-two local child death review teams throughout the state review child death cases each year. In FY2021, 259 cases were reviewed for the 2019 data year. The review rate increased from 68.4 percent for the 2018 data year to 84 percent for the 2019 data year. Stability of program staff and increased engagement with the local teams contributed to the increase in reviews. Motor vehicle incidents; sleep-related deaths; and firearm, weapons, and assault-related deaths continue to be the three leading causes of death for children in Alabama.

To improve data quality and reduce sleep-related child deaths, ACDRS conducted two Child Injury and Death Scene Re-enactment and Scene Reconstruction Training-Sudden Unexplained Death Investigation Training (SUIDI) sessions in August 2021. Each session provided investigative protocols for law enforcement, EMS, district attorneys, medical examiners, coroners, and child protective services. Participants learned the skills necessary to conduct investigations: how to conduct witness interviews, how to perform doll reenactment, and how to develop narrative reports for forensic pathologists that will provide the foundation for a more accurate determination of the cause of death and the person(s) responsible. Continuing education credits were provided to attendees at no charge.

In FY2021, the Alabama District Attorney's Association, Alabama Association of Chiefs of Police, Alabama Coroner's Association, and the Governor's Office appointed new members to the ACDRS State Team. The program continues to partner with the University of Alabama at Birmingham and the University of South Alabama on prevention efforts in the state. ACDRS continues to work to make strides that reduce child deaths in Alabama through awareness, education, and prevention efforts.

FDA Tobacco Inspection Program

Also in the branch, the FDA Tobacco Inspection Program is now in its tenth year of a contract with the FDA's Center for Tobacco Products to conduct inspections at all Alabama retailers that sell tobacco in an effort to keep minors from purchasing tobacco and to ensure tobacco permit holders comply with the requirements of the Tobacco Control Act. Due to COVID-19, inspections were only conducted in 3.5 months of 2021.

In FY2021, staff conducted 10 advertising and labeling inspections of all tobacco retailers in the state to ensure they are following federal law when advertising, displaying, and

selling regulated tobacco products. The department's sub-grantee, the Alabama Law Enforcement Agency, conducted 681 undercover buys by accompanying a minor who attempts to make a tobacco purchase. Every tobacco retailer in the state is inspected with the assistance of a trained, age-appropriate, undercover minor to determine if the teenager can purchase tobacco products in violation of the Tobacco Control Act of 2009. The program has 2 credentialed advertising and labeling inspectors and 26 undercover buys inspectors. In the 3.5-month period during which inspections could be made, the program conducted 691 inspections, which revealed a combined violation rate of 7.6 percent.

Youth Tobacco

Youth Risk Behavior Survey data for 2019 was provided by the Alabama State Department of Education. The data indicated that 7.1 percent of Alabama high school students currently smoke cigarettes, a significant decrease from 14 percent in 2015; 23.4 percent of Alabama high school students indicated that they stopped smoking for 1 day or longer, because they were trying to quit smoking cigarettes for good; 19.4 percent of Alabama high school students currently use electronic vapor products; 33.8 percent of Alabama high school students think young people who smoke cigarettes have more friends; 19.4 percent of Alabama students had used an electronic vapor product, including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens on at least 1 day within the 30 days before the survey; and 7.1 percent of Alabama students smoked cigarettes on at least 1 day within the 30 days before the survey.

The Youth Tobacco Prevention Program was awarded approximately \$939,631 to implement a grant program to effect social norm change around tobacco use, address the marketing of emerging products to youth, promote policies that protect youth from nicotine initiation and exposure to secondhand smoke, and promote tobacco cessation. Youth Tobacco Prevention Program grantees delivered 175 presentations based on the Stanford Medicine Tobacco Prevention Curriculum. In conjunction with the presentations, 4,028 pre/post tests were completed by youth in Grades 6-12. Schools were moved to an online format in March 2020 in response to the COVID-19 pandemic, and as a result some presentations were virtual. Youth Tobacco Prevention Program grantees organized or participated in 191 community awareness activities such as local coalition meetings, health fairs, and National Kick Butts Day. Social media played a very important role in educating individuals since in-person information was limited. Approximately 580,000 individuals were reached through the Alabama You Choose and ADPH Facebook pages and ADPH tobacco-related websites. In partnership with a local media company, the youth program's mass media campaign launched in August 2020. The message was aimed at addressing the youth vaping epidemic. This campaign was successful and yielded approximately 4,440,000 impressions through television, social media, and streaming services. On television, the media spot was aired 125,147 times on 54 networks targeting youth. There were 2,030,597 impressions on streaming services with a 98.47 percent (1,999,579) video completion rate. Social media yielded 2,416,064 impressions.

Tobacco Prevention and Control

Tobacco use continues to be the leading cause of preventable death in Alabama, killing in excess of 8,600 smokers and costing the state more than \$1.9 billion in direct medical expenses to treat smoking-related diseases each year. The Tobacco Prevention and Control Program works to help tobacco users quit, prevent youth and young adults from starting tobacco use, and protect people from exposure to secondhand smoke. The program utilized resources to help quit by obtaining Medicaid reimbursement for Quitline services, a \$265,725 grant from CDC to build Quitline capacity, and \$576,015 in state funds to provide up to 8 weeks of nicotine replacement therapy patches, conduct targeted outreach efforts, and support the Alabama Tobacco Quitline. Tobacco staff continued to participate as needed in COVID-19 response efforts and supported COVID-19 activities at the local level. Quitline numbers remained down due to COVID-19, and tobacco coordinators were not able to educate as many people due to ongoing restrictions resulting from businesses and schools limiting attendance and in-person teaching. Tobacco coordinators have been trained on conducting presentations virtually to reach the needs of the community.

Center for Emergency Preparedness (CEP)

Under Emergency Support Function 8, CEP has the responsibility for coordinating preparedness and response actions for the department during public health emergencies. CEP is funded entirely by federal grants, the Public Health Emergency Preparedness Cooperative Agreement, and Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Program Cooperative Agreement.

- CDC provided \$8,781,873 during FY2021-2022, in a cooperative agreement to provide overall direction to and management of the department's assessment and planning for the department's response to acts of terrorism, outbreaks of disease, and other public health threats and emergencies such as meteorological, geological, chemical, and radiological disasters. This funding is scheduled to end June 30, 2022.
- In addition, CDC provided \$8,148,799 in a Coronavirus Preparedness and Response Supplemental Appropriation to carry out surveillance, epidemiology, laboratory capacity, infection control, mitigation, communications, and other preparedness and response activities due to COVID-19. The CEP, BCL, and ID&O Division collaborated to use these funds in the most efficient manner possible, not knowing this was only the beginning of the funding streams that would be used to fight this pandemic. Funding will end March 15, 2022.
- CDC also provided \$29,676,838 in a Public Health Emergency Response: Public Health Crisis Response (Workforce Development Crisis Response) Grant in FY2021-2023. On March 11, 2021, the President signed into law the American Rescue Plan Act of 2021. It provides additional relief to address the continued impact of COVID-19 on the economy; public health; state, tribal, local, and territorial governments; individuals and businesses. These funds are to be used to expand, train, and sustain a response-ready public health workforce. This funding is scheduled to end June 30, 2023.

- The ASPR Hospital Preparedness Program provided \$3,145,268 in a cooperative agreement with the department for FY2021-2022. These funds were designated to enhance healthcare system capability and capacity and preparedness for naturally occurring disasters or acts of terrorism resulting in mass casualties. Most of this funding is used in the Health Care Coalition to fund projects at the local level throughout Alabama. In addition, the federal program provided an additional, \$1,999,871 in supplemental funding to support the urgent preparedness and response needs of hospitals, health systems, and healthcare workers on the front lines of the COVID-19 pandemic. This funding is scheduled to end June 30, 2022.

The COVID-19 pandemic has been the largest and most complex response effort in the history of ADPH. ADPH, together with AEMA, the Alabama National Guard, and with support from the Governor's Office and other state agencies, formed a Unified Command to address the needs of residents of Alabama. Due to the lack of available personal protective equipment (PPE) supply during the early days of the response, ADPH utilized its stockpile to support the essential functions of the healthcare community. ADPH also coordinated with the state's nine healthcare coalitions to share resources among facilities. This included purchasing, warehousing, and distributing PPE across the state to enable the healthcare system to remain operational. The Alabama Incident Management System was utilized to monitor the needs and status of healthcare facilities, as well as coordinating bed availability, supplies, and other resources within the healthcare system.

ADPH led the early effort to vaccinate Alabama's residents against COVID-19, even with the challenges presented of both the fragile nature and a shortage of the vaccine.

Health Media and Communications

The COVID-19 pandemic presented significant public health challenges for the second year in 2021, and public information and emergency messaging continued to be essential in the department's response. Advanced technology helped facilitate communication through the web and video conferencing platforms Webex and Zoom, as each enabled department authorities to participate in multiple interviews with media outlets worldwide within a matter of minutes.

The division endeavored to ensure and maintain transparency and trust from the public during this critical time. To keep Alabama residents better informed about COVID-19, the State Health Officer conducted 21 news media updates which were attended in person by reporters from media outlets in the state and by other entities through telephone connection. Updates were livestreamed on several broadcast and social media platforms. The State Health Officer was a guest each week on a public affairs program broadcast statewide. He and other spokespersons were interviewed frequently by local, state, national, and international media outlets.

One of the goals of the division's Digital Media Branch is to ensure departmental promotion, education, and dissemination efforts are reaching the broadest possible audience in the

quickest, most efficient manner. The branch manages and maintains the department's website which includes promotion of specific departmental programs, marketing/promotional campaigns, and events; social media networks (Instagram, Facebook, Pinterest, Twitter, and YouTube); and mobile apps.

In 2021, the department launched a redesigned version of its website in a joint effort with IT. The redesign was initiated to improve the overall look and functionality of the website, which is a valuable tool in health outreach and education efforts. The goal was to improve the users' experience and benefit citizens, such as making it easier to obtain access to COVID-19 vaccines and testing. Visitors to the site are able to access a new, more robust search feature which makes it easier for visitors to find specific information on the hundreds of programs and services the department offers. Other features include a user-friendly location map of county health departments, a form to provide feedback, and a website survey.

A major piece of the redesign is the addition of a new section called Alabama's Health, which functions as a blog/newsroom for ADPH. This section, which can be accessed directly, features all news releases and publications produced and distributed by the department, including annual reports, information on monthly health observances, messages from the State Health Officer, the department's newsletters, and other content.

The Alabama Public Health Training Network (ALPHTN) provides departmental training, educational resources, public information, and emergency response through live broadcasts and production services. ALPHTN hosted educational training in its in-house studio and provided communications support to the department. Widespread use of computer-based platforms and virtual communication continued during 2021, as the COVID-19 pandemic posed challenges to in-person trainings and meetings. A total of 97 video conferences were held during the year. Live virtual conferences and training programs included programs in the areas of women's health, infant mortality, Alzheimer's and dementia research, suicide prevention, home safety in the age of COVID-19, human trafficking, and telehealth. Statewide staff meetings and updates for nurse practitioners were also conducted and made available on-demand on the department website. Sets of four monthly public service announcements on health topics were recorded and distributed to a network of radio stations throughout the state. To answer public concerns about the COVID-19 vaccine, staff also assisted with a local television station's phone bank held in the ADPH distance-learning studio.

In July, the division began its final year of a 4-year agreement serving as a community-based training partner with the Region IV Public Health Training Center located at the Rollins School of Public Health at Emory University in Atlanta, Georgia. The division works collectively as a network with Emory, along with other partners and technical assistance providers to improve the ability of the public health workforce to meet national, state, and local needs.

Marketing projects included designing professional quality original art for the website, social media, billboards, direct mail, and yard signs. In addition, staff prepared forms, booklets, charts, posters, certificates, and other documents. With the

assistance of division staff, state-of-the-art digital electronic signs were installed at county health departments statewide for educational and informational purposes. Health marketing staff formatted a daily COVID-19 case characteristics breakdown, a weekly risk indicator table and map for the COVID-19 dashboard. Health orders were placed on the dashboard.

COVID-19 campaigns in conjunction with other entities included the following:

- Many Alabamians are sports enthusiasts, and COVID-19 advertising efforts were targeted to this large segment of the population that may be difficult to reach. In cooperation with the Increasing Community Access to Testing Program of the U.S. Department of Health and Human Services, its testing provider, the CDC Foundation, and the CDC, the "Race to End COVID" campaign at the Talladega Superspeedway offered participants a free drive on the racetrack when they were tested or vaccinated.
- The Kick COVID Initiative called on college and university football players, coaches, cheerleaders, and other notable sports figures to urge their fan bases to be tested and vaccinated. This vaccination and testing campaign leveraged the state's passion for college football by offering vaccinations and testing in prominent locations at select home games for each of the state's 14 FBC/FCS football programs. Notable figures were featured in public service announcements promoting COVID-19 vaccinations.
- The Protect Alabama Campaign was created to inspire underserved communities throughout the state to trust and receive the COVID-19 vaccine. The campaign used grassroots marketing efforts that included outreach to minority communities to reach African American, Hispanic, and Tribal Nations citizens.
- With face coverings proving to be one of the most effective methods of preventing COVID-19 transmission, the division collaborated with the Alabama Hospital Association and the Medical Association of the State of Alabama to sponsor a video contest for Alabamians of all ages to share why they felt it was important to wear a mask. The Mask Up Alabama video contest asked applicants to utilize information from CDC that highlighted basic information related to mask wearing and COVID-19. The winning videos were decided by popular vote.
- To help improve vaccine confidence, a TikTok competition was held for youth and young adults. Contest entries featured imaginative videos showing young people being vaccinated or explaining their reasons for getting vaccinated for COVID-19. Winning videos are available on TikTok and the COVID-19 website.
- Late in the year, an emotional "Alabama Unites Against COVID" Campaign stressed the importance of people from all walks of life standing together in their communities to fight the virus. The multimedia communications campaign highlighted messages from community leaders, parents, and others engaging in several occupations and pursuits and protecting themselves by getting vaccinated and tested for COVID-19.

In addition to preparing more than 130 news releases, staff coordinated the dissemination of information from

spokespersons to the mass media, composed and edited a variety of publications and documents, and answered questions from the public. COVID-19 activities included providing information about the status of the virus and vaccines, recommending COVID-19 prevention measures, announcing vaccine eligibility changes, school guidance, and other topics. In addition, releases were prepared and distributed on subjects including: home radon testing, STD and HIV prevention and care, designated health observances, infectious diseases, and weather emergency preparedness.

Management Support

The Office of Management Support (OMS) provides leadership and coordination for critical departmental programs such as: Records Disposition Authority, Grant and Budget Management, Policy Clearinghouse, and Competitive Selection Process.

Other major programs that support operation goals include:

Public Health Accreditation

In 2021, planning and preparation for reaccreditation through the Public Health Accreditation Board (PHAB) continued. The accreditation coordinator utilized guidance from PHAB to develop internal training to enable the department to provide low-cost training for the accreditation teams. This training was made available virtually on a monthly basis then shifted to an on-demand version late in the calendar year. As of November 2021, about 12 percent of required documentation was approved for submission.

Strategic Planning

The ADPH Strategic Plan was updated and released in February 2020. Work toward a revised strategic plan to be released in January 2022 began in collaboration with other bureaus. While one team continued working on its assigned project, others were unable to restart their efforts due to COVID-19 restrictions and reassignments.

Performance Management

In late 2019, ADPH decided to adopt and implement the Results Based Accountability (RBA) model for performance management efforts. RBA is a common-sense approach that encourages a focus on collaborative work with community partners to impact health outcomes. In 2021, the Performance Management staff developed materials to provide training internally, guided the adoption of RBA principles, and ensured successful implementation of the core concepts of RBA. This included coaching staff through identification and selection of more meaningful performance measures. ADPH plans to begin releasing annual performance management reports that include these performance measures and increase transparency.

Quality Improvement (QI)

QI training continued to be provided to departmental staff, with all trainings being available virtually and, as a result, more frequently. In 2019, QI training was provided one day per month with half of the training classes being made available each month. In 2021, all QI training content was provided at least once per month and in time blocks of 1 to 2 hours per training. This made attending the training more feasible for staff who are not located at the Central Office in Montgomery.

The QI staff plan to conduct a survey to determine the meaningfulness of the QI training in terms of long-term usefulness of the tools and concepts taught. This will help the QI staff make content more actionable and impactful for programs.

Workforce Development (WFD)

The ADPH WFD Program offers training programs and initiatives designed to help departmental employees deliver high quality public health services. The program's goal is to strengthen the performance and capacity of the ADPH workforce so that the ability to serve customers increases.

Through the WFD Program, staff training is offered on a continuous basis by ADPH and partners such as the State Personnel Department. Two soft skills training courses were made available to staff across the state provided by an ADPH soft skill training team. "Work Life Balance" and "Understanding Yourself – the Key to Success" courses were developed based on training gaps identified through an internal needs assessment survey. A total of 28 soft skill training sessions and 48 supervisory training classes were held in 2021 with 892 participants.

The WFD Program offers an integrated, online Learning Management System platform through Healthicity, a healthcare compliance management system. Healthicity's training center module offers 72 courses for various training needs. The platform is also used to provide customized training created by ADPH.

To recruit and retain a highly skilled workforce, the department supports hosting students enrolled in educational institutions as interns. Through the internship program, individuals are offered an opportunity to make a positive contribution and to develop professional skills and experience. The internship experience offers an opportunity for students to learn about the role and responsibility of public health, earn educational credits, gain valuable work experience, and explore new careers in public health. The department works with various educational institutions to provide nonclinical internship placements throughout the state public health system. Through a partnership agreement with UAB School of Public Health, the department hosts several graduate student interns each year.

Nutrition and Physical Activity (NPA)

The NPA Division provides state leadership and represents the department on issues related to nutrition, physical activity, obesity, chronic disease, and wellness. Adults and youth in Alabama continue to have high rates of obesity and chronic disease. The state consistently ranks as one of the most obese states in the nation. The most recent data from CDC report a 39 percent obesity rate in Alabama adults.

The vision for the division is for Alabamians of all ages to embrace a culture of healthy choices as their normal way of life. The following initiatives are coordinated by NPA to support healthy behaviors in adults and youth:

- Recognized as the state's largest health and wellness program, Scale Back Alabama is entering its sixteenth year. Scale Back Alabama is an inclusive, free, statewide wellness program that encourages Alabamians to improve their health by eating better and moving more. The program took on a new look in 2021 keeping COVID-19 precautions in mind. The program evolved into a more holistic approach to health, rather than just focusing on weight loss. Content has increased and diversified, switched to a virtual format, and developed individualized health goals.

- The State Obesity Task Force is a network of organizations and individuals who work to reduce and prevent obesity in Alabama. Members of the task force continue working together to lead efforts to create a unified strategy to improve prevalence rates of obesity in Alabama through policy, system, and environmental changes that support healthy nutrition choices and regular physical activity.
- The Alabama Disability and Health Program works to improve the health and quality of life among people with disabilities through adaptation and implementation of evidence-based health promotion and prevention strategies. In Alabama, 33.4 percent of adults have some type of disability compared to 26.7 percent of adults in the United States. People with disabilities continue to experience significant health disparities and are more likely to be inactive and have obesity, among other health inequities. In 2021, the implementation of program activities was impacted by the COVID-19 pandemic. Despite this, the program continued valuable partnerships to develop and disseminate inclusive health promotion and prevention resources, guidebooks, and online trainings for worksites, schools, and after school programs. The program also helped to develop and distribute COVID-19 related resources and information for people with disabilities, offer health provider training, and aimed to improve accessibility to vaccination clinics throughout the state.
- The Healthy Wellness Initiative is a collaboration between NPA and the Alabama Department of Education to provide wellness, nutrition, and physical activity training, technical assistance, and information to the 21st Century Community Center Learning Program and Dependent Care grantees. In 2021, multiple trainings and presentations were conducted with after school programs around the state to provide resources and curricula that teach healthy nutrition and physical activity habits to students.
- In Alabama, 1 in 5 adults and 1 in 4 children struggle with food insecurity (or having enough food for an active, healthy life). Many food insecure households include one or more family members living with a chronic disease such as high blood pressure or diabetes. Frequently, the time and money spent caring for a chronic disease strains the food budget even more, creating a cycle that increases the risk that the person's health will get worse and the food budget will continue to shrink. The division seeks to improve access to adequate, nutritious foods through partnerships with organizations that provide food access resources. Resources were developed and made available online as well as distributed to over 20,000 individuals and families through partnership with SNAP-Ed, WIC, ADPH district outreach coordinators, the Well Woman Program, the Montgomery Area Food Bank, the Wellness Coalition, and the Community Health and Education Resources Center in Sumter County.
- As an implementing agency for the SNAP Education Program, the division provides nutrition education to individuals who are eligible for SNAP benefits. Education activities took place in schools, local health departments, and senior nutrition centers where approximately 650 individuals received direct education. A digital media campaign was conducted reaching 1,380 individuals with online nutrition information and resources.

Trainings that promote and support school wellness policies were completed in 2021 for faculty from 47 schools statewide.

Cardiovascular Health

According to the Behavioral Risk Factor Surveillance System's (BRFSS) 2019 Data Report, 42.5 percent of Alabama adults surveyed said they have been told by their doctors they have high blood pressure or hypertension. According to the ADPH Center for Health Statistics, the mortality rate from cardiovascular disease shows a higher discrepancy in Alabama, 274.2 people per 100,000 population compared to 200.8 per 100,000 in the U.S. as a whole in 2019. According to BRFSS' 2019 Data Report, the U.S. prevalence of hypertension is 32.3 percent and 33.1 percent for high blood cholesterol levels. The Cardiovascular Program, funded by CDC, continued to work on six strategies over the year, despite COVID-19 slowing down progress on some of the strategies.

Program Accomplishments:

- Established 7 new self-monitoring blood pressure sites around the state, bringing the total number of sites to 63. All sites were shut down for several months due to COVID-19. Despite this the second half of 2021 has almost normal participation in those sites that are open. It is clear though, that the progress made prior to COVID-19 in reaching controlled rates of blood pressure has not been sustained.
- Collaborated with the University of Alabama–University Medical Center and the Mobile County Health Department to develop a lifestyle modification program to treat hypertension and high blood cholesterol. Together they currently have a total population of 58,834 for 2021 and a total number of clinics/sites of 35. Although the population treated in 2021 has dropped due to COVID-19, the partners have responded by increasing the number of clinics/sites by 16 and the number of providers to 171, to better reach and serve their patient populations. Their patient app is still being used and the education programs available by app have been increased. Patients who do not have or use a cell phone can access this information on the partners' websites.
- Partnered with the UAB Preventive Medicine Department to pilot a heart health practice facilitation intervention in three family medicine clinics. The primary outcome was related to hypertension screening and management.

Diabetes

- The Alabama Diabetes Program focuses on increasing community access to resources that assist with managing and preventing diabetes. Diabetes Self-Management Education and Support (DSMES) helps people with diabetes to implement and sustain behaviors important to managing the condition on an ongoing basis. The CDC Diabetes Prevention Program (DPP) lifestyle change program is designed to help those with prediabetes and those at risk of developing Type 2 diabetes to prevent or delay the onset of Type 2 diabetes through healthy eating and physical activity. Alabama has 34 CDC-recognized DPP organizations and over 50 accredited/recognized DSMES sites.

- Support to Samford University’s McWhorter School of Pharmacy (MSOP) continued this year, allowing Samford to implement quality improvement activities within its DSMES training for pharmacists and dietitians. MSOP had a total of 12 participants complete the training in 2021. As part of this training, five new practices have received accreditation, and Samford recruited practices from two counties that had no DSMES services. An additional \$40,000 was awarded separately to four DSMES programs to help establish expansion sites in areas where DSMES services were not previously offered.
- The Alabama Diabetes Program awarded \$105,000 in mini-grants to seven organizations to either implement DPP lifestyle change programs or help existing programs work towards achieving full recognition through CDC. The funding has also helped organizations to implement distance learning into their programs to maintain program delivery to participants during the COVID-19 pandemic.
- Outreach efforts continued through district outreach coordinators (DOCs) in each of the ADPH governed public health districts. DOCs are social workers who contacted and provided support to local DSMES and DPPs as these programs adapted their work/services to keep their clients safe and healthy. In addition to local program support, DOCs continued to aid their local district and county health departments in COVID-19 response efforts. This included screening people entering health departments, assisting at drive-through testing clinics, answering telephone calls, and helping with investigations. DOCs also distributed chronic disease information while assisting in these efforts.

Pharmacy

The Pharmacy Division is a staff of three and is responsible for the Prescription Drug Monitoring Program (PDMP), providing medication information and medication protocol support to county health departments, maintaining the Alabama Controlled Substances List, and assisting CEP in disasters. In addition, the Pharmacy Division is involved in fighting the opioid crisis through education, collaboration, and prevention activities. During the coronavirus pandemic, the Pharmacy Division has managed the pharmaceutical treatments including monoclonal antibodies and antiviral medications that have emergency use authorization approval by FDA and assisted early in the vaccination efforts. Pharmacy staff worked with pharmacies throughout Alabama to increase the number of providers offering testing and vaccinations.

Overdose Data to Action grant activities continued and Pharmacy Division staff collaborated with other state agencies and community groups to provide education and prevention activities in local communities and for healthcare professionals. The anti-stigma campaign, which brings awareness and exposure in an effort to end the stigmas of opioid use disorder, HIV, viral hepatitis, substance use disorder, and mental illness, completed another phase with education materials for healthcare providers.

PDMP staff are active members of the Opioid Overdose and Addiction Council and three of its subcommittees: Rescue, Prescriber/Dispenser, and Data. Staff collaborates with the Alabama Department of Mental Health to distribute naloxone, a medication that reverses an opioid overdose, to first responders and people at risk for an overdose.

Improvements continue to be made to the PDMP database. Most significantly, the number of users accessing PDMP data through their electronic health record has increased. This feature saves the user time and improves workflow efficiency within the healthcare practice, thereby improving utilization of the database. Grant funding through the U.S. Bureau of Justice Assistance allowed the program to provide PDMP education to healthcare professionals across the state. Five virtual PDMP trainings were well attended and focused on interpretation of risk scores, how to incorporate the PDMP database into a practice, and the importance of documentation. In addition, nine training videos were developed to assist PDMP users in how to use certain features of the database.

Primary Care and Rural Health

The Office of Primary Care and Rural Health (OPCRH) administers programs to improve healthcare access and quality in rural and medically underserved communities. Currently, 63 of Alabama’s 67 counties have areas designated as being medically underserved. These underserved areas have a high prevalence of healthcare issues, including chronic diseases such as diabetes, hypertension, heart disease, and other challenges such as a high rate of substance abuse. OPCRH employs several programs and works closely with partners such as the Alabama Rural Health Association, Alabama Hospital Association, Alabama Primary Health Care Association, and departmental bureaus to address these health issues. Some of the major initiatives in OPCRH are recruitment and retention of healthcare professionals, and technical assistance to assist 42 small, rural hospitals and health providers in transitioning to a new value-based healthcare system.

OPCRH utilizes a national, web-based recruitment system called National Rural Recruitment and Retention Network to recruit into medically underserved areas. During FY2021, approximately 1,543 primary care practitioners were referred to rural hospitals and clinics in Alabama. Another recruitment program is the National Health Service Corps (NHSC), which has both scholarship and loan repayment components.

NHSC covers a wide array of health professionals, from physicians, dentists, and nurses, to behavioral health professionals. Currently, there are 131 Alabama participants in the NHSC Program. These programs are supplemented by a J-1 visa waiver program, which enables placement of foreign-trained physicians in return for 3 years of service in medically underserved areas. Currently, there are 72 healthcare providers delivering medical care to rural and medically underserved Alabamians under the J-1 visa waiver program. OPCRH assists communities in establishing Centers for Medicare and Medicaid services-certified rural health clinics. Over the past year, 15 new rural health clinics were established, for a current total of 147.

OPCRH collaborates with various entities to address workforce issues essential to improving the health of Alabama residents. One such initiative is the partnership with the UAB Heersink School of Medicine - Huntsville Regional Medical Campus to develop a rational service area plan designed to identify workforce shortage areas more accurately for federal designation. These areas determine eligibility for certain federal grants as well as eligibility for NHSC and the J-1 visa waiver program. Alabama's 42 small, rural hospitals are also assisted under federal grants administered by OPCRH which target improvement of operational efficiency, quality, and hospital sustainability.

COVID-19 presented many financial and operation challenges to Alabama's rural hospitals, including heavy reductions in patient appointments and elective surgeries, as well as an unprecedented level of hospital staff turnover. To build on efforts that the Health Resources and Services Administration (HRSA) began in 2020, to provide funding to hospitals through the Coronavirus Aid, Relief, and Economic Security Act, HRSA provided a second wave of funding through the American Rescue Plan. These funds target COVID-19 testing and mitigation efforts.

OPCRH continues to work closely with the Alabama Hospital Association to provide relief and support to Alabama's small rural hospitals.

Wellness

Public Education Employees' Health Insurance Plan (PEEHIP) Wellness Program

PEEHIP Wellness is a joint project of the department and PEEHIP. In FY2015, PEEHIP mandated that members be screened or pay more for their medical insurance. Members had the opportunity to get a screening without being penalized. During FY2021, department nurses performed 72,596 screenings at the worksite and healthcare providers conducted an additional 38,951 screenings. During this same time frame, 27,951 received an influenza vaccine.

State Employees Insurance Board (SEIB) Wellness Program

During FY2021, 8,699 state employees were screened by Wellness Program staff for the SEIB. A total of 3,357 SEIB employees received an influenza vaccine.

Local Government Health Insurance Board (LGHIB) Wellness Program

During FY2021, 13 local employees were screened by Wellness Program staff for LGHIB. A total of 1,992 LGHIB employees received an influenza vaccine. The Wellness Program has had a contractual agreement with LGHIB since 2017.

Also, during 2021 the Wellness Entry Login Link (WELL) System was used in selected sites statewide. This is a web-based system designed to reduce the need for paper. Additional laptops were purchased with the goal of implementing the system statewide in 2022.

OFFICE OF PROGRAM INTEGRITY

The Office of Program Integrity is an independent appraisal arm of the department. The office serves the State Health Officer to provide assurances regarding the integrity of the department's financial systems, compliance with federal requirements, and compliance with applicable state laws and regulations. The office also serves as consultant for the programs, services, and functions of the department.

The primary mission of the office is to assist directors, managers, and administrators in effectively discharging their duties by reviewing

various activities and functions within the department, presenting reports on deficiencies, and providing recommendations for corrective actions concerning those activities.

With the department focusing on COVID-19 vaccine clinics, Program Integrity staff limited audit operations in the field during 2021. During this time, the office audited elements of the ITEMS database system and explored other opportunities to perform audit steps remotely to improve our audit efficiency and effectiveness.

Figure 59. County Health Department Audits, FY2021

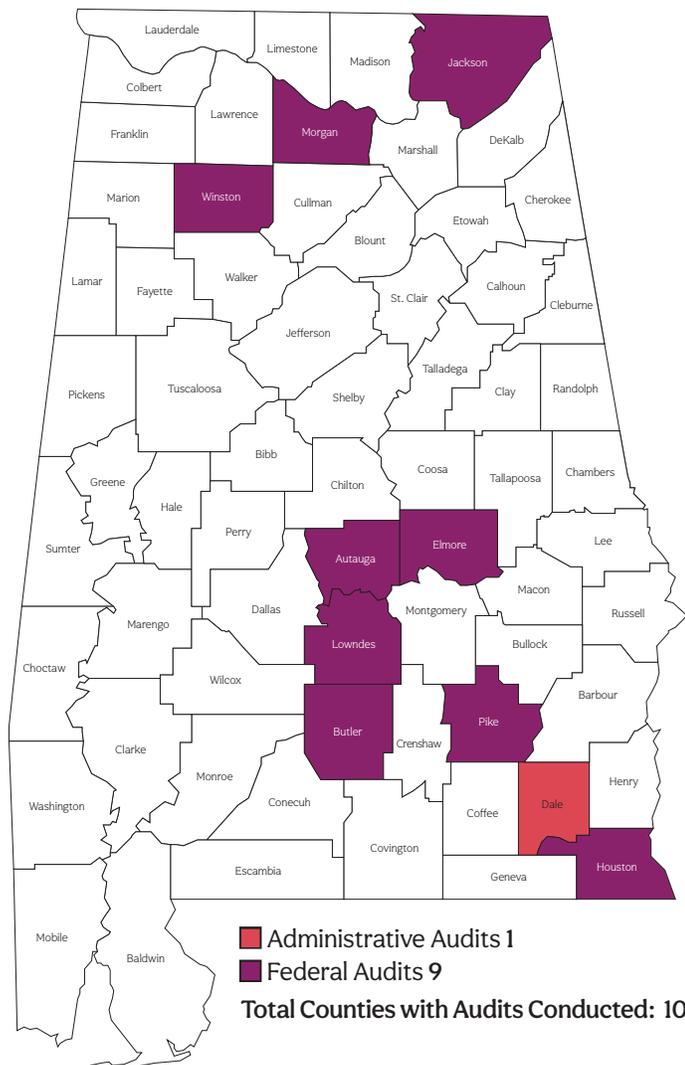


Figure 60. Special Reviews and Consulting Activities, FY2021

SAFE (Security for Alabama Funds Enhancement) Program Compliance Monitoring	
158 separate accounts	\$29,229,800.71
Subrecipient Compliance and Monitoring	
Imprest Account Monitoring	
Monthly review of bank statements and fund balance reconciliations	
65 accounts	\$833,000.00
ITEMS Database – Assets in Transfer Status	
District/County Level	578 assets
State Level	975 assets

OFFICE OF RADIATION CONTROL

The mission of the Office of Radiation Control is to protect the public and occupationally exposed workers from unnecessary exposure to ionizing radiation. This is accomplished by registering, licensing, and inspecting the day-to-day use of ionizing radiation in the state of Alabama; working with registrants and licensees to assist them in developing and implementing programs to maintain radiation doses as low as reasonably achievable; performing routine monitoring of radioactivity in the environment; preparing and responding to incidents involving nuclear and radioactive material at the two nuclear power plants and radioactive material licensees in the state; and conducting formal public and professional educational programs.

Notable Achievements for FY2021

Radioactive Materials Program: The radioactive materials program operates under an agreement with the U.S. Nuclear Regulatory Commission (NRC), and Alabama is one of 39 Agreement States. Radioactive material can be possessed and used under a general license or specific license by entities within Alabama. There are 193 general licensees and 332 specific licensees using radioactive material in Alabama. During this period, the office conducted a total of 189 inspections of radioactive material licensees. Additionally, the office issued radioactive material licenses to 9 new applicants and processed 245 amendment requests. As an Agreement State, the program is subject to periodic reviews under NRC's Integrated Materials Performance Evaluation Program (IMPEP). The next scheduled IMPEP review will be in 2023.

Industrial Radiographer Certification Program: The office provides a service to certify industrial radiographers using radioactive material and X-ray machines in radiation safety. The office evaluates the individual's classroom and on-the-job training and tests the individual's knowledge with a 125-question exam. If individuals pass the exam and their training is complete, they are issued a certification card that allows them to work in Alabama as an industrial radiographer. For 2021, 51 applicants were tested, and 39 radiographers were issued certification cards. Recertification is required every 5 years by retaking the exam.

Medical X-Ray and Particle Accelerators: The office registers and inspects users of medical X-ray equipment. Staff conducted 1,102 routine inspections of medical X-ray facilities during the period. This included 137 inspections of mammography facilities under the Mammography Quality Standards Act. During this period, 207 shielding plans for X-ray facilities were evaluated by staff and 313 new X-ray machines were registered. Additionally, the office registers

and inspects particle accelerators. There are 45 registrants of particle accelerators that include linear and proton accelerators used for cancer treatments, and cyclotrons used for radiopharmaceutical production. During this period, 11 particle accelerator registrants were inspected, and 39 amendment requests were processed.

Non-Medical X-Ray: The office registers and inspects users of non-medical X-ray equipment, including X-ray machines used for analytical, gauging, baggage X-ray, whole body scanning, non-destructive testing, and research. There are 375 facilities registered to use non-medical X-ray equipment. During this period, 8 new facilities were registered, 124 registration amendments were issued, and 70 facilities were inspected.

Emergency Planning: The office provided radiation safety and emergency response training to 316 individuals during this period, both in person and online. Those receiving training included individuals from ADPH, Alabama Emergency Management Agency, county emergency management agencies, hospitals, EMS, and police, fire, and sheriff's departments around Alabama's two nuclear power plants. The office supplies approximately 1,500 thermoluminescent dosimeters (TLDs) to first responders in the event of an off-site incident at one of the two nuclear power plants. These TLDs measure the amount of radiation exposure an individual may receive during an incident and are exchanged annually. During this period, the office successfully demonstrated two FEMA-evaluated plume-phase nuclear power plant exercises. Additionally, the EMTs and hospital medical personnel in Morgan and Houston counties were trained on techniques to handle a contaminated patient and were able to successfully demonstrate two FEMA-evaluated medical service drills.

Environmental: The office continues to collect ambient, air, water, soil, and vegetation samples from areas surrounding certain radioactive material licensees and the two nuclear power plants located in Alabama to confirm that any releases of radioactive material are within regulatory limits. During this period, 48 water samples, 24 vegetation samples, 4 fish samples, and 325 air samples were collected and analyzed for radioactive concentration.

Waste Isolation Pilot Plant (WIPP): The WIPP facility, located near Carlsbad, New Mexico, is the only repository for the disposal of nuclear waste known as transuranic waste. This transuranic waste is shipped from facilities throughout the United States and transported on predetermined routes and monitored via GPS tracking. The routes include Interstates 59 and 20, traveling through 10 corridor counties in Alabama. Through coordination with the Alabama Emergency Management Agency, the

Radiation Control employees equip and train first responders in the WIPP corridor counties to respond in case of an accident or incident involving a WIPP shipment.

Radon: Through continued outreach opportunities and through the radon website, the office encourages citizens in Alabama to test their homes for radon and responds to requests for information received through phone calls and e-mails. During this period, the office responded to 437 e-mails and phone calls, with 2,012 radon test kits

ordered through the web site. Of the 2,012 test kits, 1,164 were requested on January 5, 2021, after a department news release was issued during Radon Action Month.

Regulation Development: The office amended Rule 420-3-26-.02, Licensing; Rule 420-3-26-.07, Use of Radionuclides in the Healing Arts; and Rule 420-3-26-.15, Physical Protection of Category 1, and Category 2 Quantities of Radioactive Material. These changes were made to be compatible with the NRC rules. The new rules went into effect November 14, 2021.

COUNTY HEALTH DEPARTMENT SERVICES

Public Health services in Alabama are primarily delivered through county health departments. Larger counties and counties with specific needs have more than one county health department location. A wide variety of services is provided at county health departments, as well as valuable information.

Typical services and information include the following:

- Alabama Breast and Cervical Cancer Early Detection Program
- Bio Monitoring Services
- Birth, Death, Marriage, and Divorce Certificates
- Cancer Detection
- Child Health
- Children's Health Insurance Program
- Dental Services/Health Education and Community Fluoridation Programs
- Diabetes
- Disease Surveillance and Outbreak Investigations
- Family Planning
- Food and Lodging Protection
- HIV Prevention and Care
- Home Care Services
- Immunization
- Insect and Animal Nuisances That Can Transmit Disease to Humans
- Laboratory
- Maternity
- Nursing Services
- Nutrition Services
- Onsite Sewage Disposal Systems
- Sexually Transmitted Diseases
- Solid Waste
- Telehealth
- Tuberculosis
- Water Supply in Individual Residential Wells
- Women, Infants, and Children

PUBLIC HEALTH DISTRICTS MAP

East Central District

Tim Hatch, District Administrator
 3060 Mobile Highway
 Montgomery, AL 36108
 (334) 293-6400
 James Hardin, Assistant District Administrator
 1801 Corporate Drive
 Opelika, AL 36801
 (334) 745-5765

Jefferson County

Mark E. Wilson, M.D., County Health Officer
 David Hicks, D.O., M.P.H., Deputy Health Officer
 1400 Sixth Ave. S.
 Birmingham, AL 35233
 (205) 933-9110

Mobile County

Kevin Philip Michaels, M.D., M.P.H., F.A.C.O.E.M.
 County Health Officer
 251 N. Bayou St.
 Mobile, AL 36603
 (251) 690-8827

Northeastern District

Mary Gomillion, District Administrator
 Mark Johnson, Assistant District Administrator
 709 E. Broad St.
 Gadsden, AL 35903
 (256) 547-6311

Northern District

Judy Smith, District Administrator
 Michael Glenn, Assistant District Administrator
 3821 Highway 31 S.
 Decatur, AL 35603
 (256) 340-2113

Southeastern District

Corey Kirkland, District Administrator
 1781 E. Cottonwood Rd.
 Dothan, AL 36301
 (334) 792-9070
 Kyle Odom, Assistant District Administrator
 2841 Neal Metcalf Rd.
 Enterprise, AL 36330
 (334) 347-9574

Southwestern District

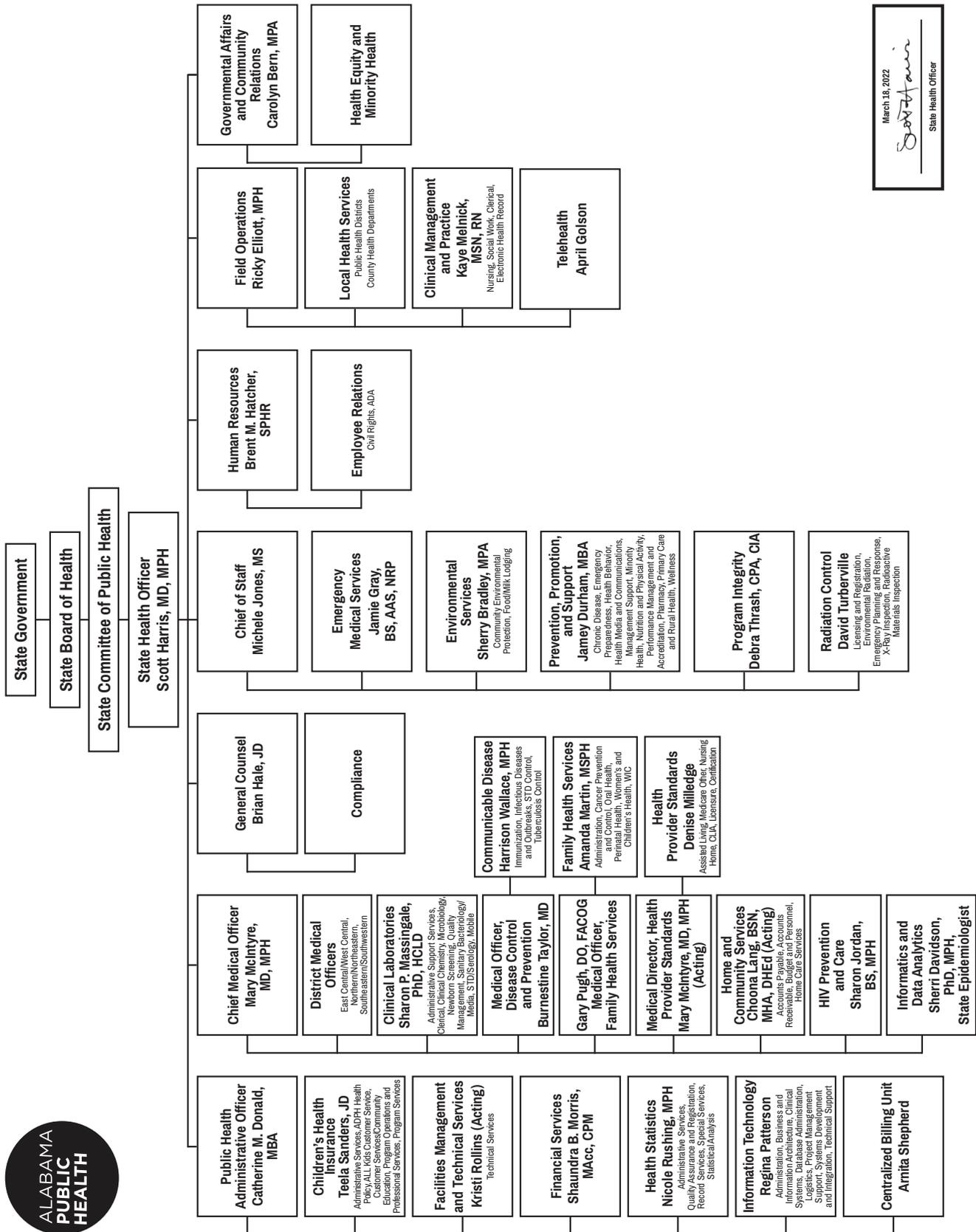
Chad Kent, District Administrator
 1115 Azalea Place
 Brewton, AL 36426
 (251) 947-1645
 Suzanne Terrell, Assistant District Administrator
 303 Industrial Drive
 Linden, AL 36748
 (334) 295-1000

West Central District

Stacey Adams, District Administrator
 Renee Cole, Assistant District Administrator
 2350 Hargrove Rd., E.
 Tuscaloosa, AL 35405
 (205) 554-4500



ADPH ORGANIZATIONAL CHART



March 18, 2022

 State Health Officer



The Alabama Department of Public Health Annual Report is published by the Bureau of Prevention, Promotion, and Support.

Chief of Staff

Michele Jones, M.S.

Director, Bureau of Prevention, Promotion, and Support

Jamey Durham, M.B.A.

Director, Public Information

Arrol Sheehan, M.A.

Graphic Designer

Noelle Ahmann

For additional copies of this report, contact:

Alabama Department of Public Health

Bureau of Prevention, Promotion, and Support

The RSA Tower, Suite 910

201 Monroe Street, P.O. Box 303017

Montgomery, AL 36130-3017

334.206.5300

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will be made available upon request.

This document may also be obtained through the Alabama
Department of Public Health's Web site at alabamapublichealth.gov.

